THE BUILDER

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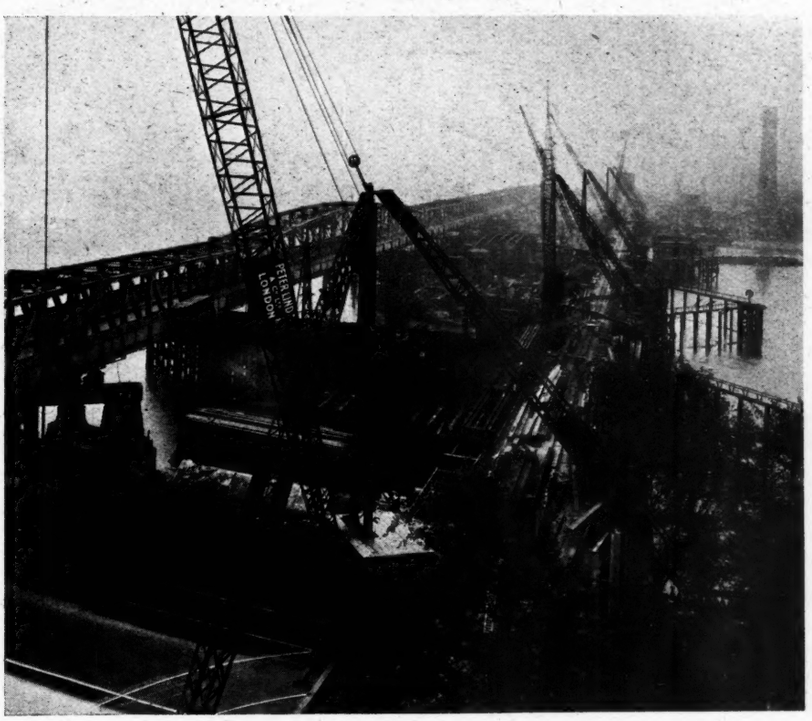

PROGRESS OF WATERLOO BRIDGE (5).

This photograph shows a general view of the works, from Lancaster House, on Waterloo Bridge. The site of the new bridge is between the temporary bridge on the left and the contractors' gantry on the right of the photograph. The sheet piles of the cofferdam for the northern river pier can be seen in process of being driven and further south appear five of the centering girders spanning the south navigation channel. Our view is shown by courtesy of the London County Council.

COMING EVENTS

Friday, November 18.

London Society. Mr. Ronald P. Jones on "Wren's London and Ours." 5 p.m.

Town Planning Institute. Presidential address by Mr. J. E. Acfield. Conference Hall, Central Hall, Westminster, S.W.1. 6 p.m.

Monday, November 21.

Royal Institute of British Architects. Mr. Oliver W. Roskill on "Economics of the Building Industry: Achievements and Anomalies." 8 p.m.

Institution of Structural Engineers (Midland Counties Branch: Junior Section). Mr. J. V. Banyard on "Some Points of the Erection of Structural Steelwork." James Watt Memorial Institute, Birmingham. 6.30 p.m.

Design and Industries Association. Mr. Alister G. Macdonald on "The Empire Exhibition Glasgow, 1938." Bristol University. 8 p.m.

Tuesday, November 22.

Architecture Club. A supper discussion. Charing Cross Hotel. 7.45 p.m.

Institution of Structural Engineers and the Institution of Civil Engineers. Professor Auker Engelund on "Design and Construction of Bridges in Denmark." At the Institution of Civil Engineers, Great George-street, S.W.1. 6 p.m.

Wednesday, November 23.

Garden Cities and Town Planning Association. Award of the Howard Memorial Medal to Sir Raymond Unwin, P-P.R.I.B.A., P-P.T.P.I. Complimentary dinner. Grosvenor House, Park-lane, W.1.

L.C.C. Central School of Arts and Crafts. Sir Banister Fletcher on "Greek Architecture (3000-146 B.C.): The Parthenon, Athens." 6 p.m.

Liverpool Architectural Society. Mr. G. A. Jellicoe on "Gardens." 6 p.m.

Wednesday and Thursday, November 23 and 24.

Coal Utilisation Council. Fourth National Coal Convention. Hotel Great Central, Marylebone-road, N.W.1. 10.30 a.m.

Thursday, November 24.

Institution of Structural Engineers. Mr. F. M. Easton on "Dock Gates." 6.30 p.m.

Institution of Electrical Engineers. Mr. H. C. MacEwan on "Electric Heating for Merchant Ships." 6 p.m.

Institution of Civil Engineers. Mr. J. Dosser on "The Construction of York Aerodrome." York. 7.30 p.m.

Friday, November 25.

Institution of Heating and Ventilating Engineers (Scottish Branch). Mr. F. Forster on "Some Developments in Gas Fired Boiler Practice with particular reference to the use in Gas Boilers of the Sinuflo Tube." 39, Elmbank-crescent, Glasgow. 7.30 p.m.

Friday-Sunday, November 25-27.

National Housing and Town Planning Council. Conference. Royal Hall, Harrogate.

Saturday, November 26.

London Association of Builders' Foremen and Clerks of Works. Annual Dinner. Connaught Rooms, W.C.2. 6.30 p.m.

Monday, November 28.

National Federation of Specialists and Sub-contractors. Fourth Annual Banquet. Park-lane Hotel, W.1. 6.30 p.m.

Ecclesiological Society. Miss I. D. Thornely on "Mediæval Animals, Real and Otherwise." 6, Queen-square, W.1. 8 p.m.

Institute of Welding (Scottish Branch). Mr. H. Harris on "Pressure Vessel Welding." At the Institution of Engineers and Shipbuilders, Glasgow. 7.30 p.m.

Tuesday, November 29.

Architectural Association. Mr. T. S. Tait on "The Empire Exhibition, Scotland, 1938." 8.30 p.m.

FOREIGN ZONE, NEW YORK WORLD'S FAIR.

This air view of the Foreign Zone shows the progress that is being made with the World's Fair, New York. In the background is the Court of Peace, with a capacity of 50,000 persons, in which will be represented nearly sixty nations. The opening of the Exhibition, which is said to be several weeks ahead of schedule, is April 30 next.

A KEY TO THE SITE.

The numbered sites, showing various stages of construction, are: 1. United States Federal Building, with the Halls of Nations extending towards the lagoon, all partly enclosed over steel ; 2. The Court of Peace ; 3. Canada, foundations started ; 4. Argentina, foundations started : 5. Norway, foundations started ; 6. Eire, foundations started ; 7. Rumania, up in steel ; 8. U.S.S.R., foundations completed ; 9. Czechoslovakia; 10. Japan, foundations started ; 11. Belgium, steel partly enclosed; 12. Sweden, foundations started ; 13. Turkey, foundations started ; 14. Lagoon of Nations ; 15. France, steel being erected ; 16. Brazil, foundations started ; 17. British Empire, steel completed ; 18. Italy, steel completed ; 19. Chile, foundations started ; 20. League of Nations ; 21. Portugal ; 22. Venezuela ; 23. Poland, foundations started ; 24. Netherlands, foundations started ; 25. Switzerland. In the left foreground is Constitution Mall, which is nearing completion, with its elaborate planting and wide pools of cascading water. Sculpture will be used to a considerable extent in the scheme.

TOPICS OF THE DAY

THE "SOUTH BANK" IMPROVEMENT SCHEME.

THE south side of the Thames in central London, notwithstanding a certain squalid picturesqueness, has long been regarded as an entirely unworthy complement to the Victoria Embankment on the other side, and there will be general satisfaction that at long last the London County Council is taking steps for the redevelopment of a considerable length of it, namely, the stretch between Westminster and Waterloo Bridges. Particulars of the proposals are given on page 984 of this issue. Sooner or later the remainder of the river frontage as far as Blackfriars Bridge must be dealt with, and no doubt the special problems of that part are being borne in mind.

No plan is yet available showing the exact proposals, but, apart from certain widenings of existing adjacent roadways and other adjustments, it may be said that the scheme involves, in essence, the construction of an embankment wall with a promenade, and the provision of an open space beside the river, behind which there would be a new road parallel with the river, to be fronted with "well-designed buildings of a scale and character not out of keeping with the County Hall and its extension." To what extent the new road would be intended to constitute an arterial way from east to west is not yet apparent, but there seems to be a good case for isolating this salient from the main flow of traffic.

That the scheme would provide an enormous improvement in the amenities of the south side is obvious. Already, however, it is being suggested that the present time is inopportune for such a costly undertaking. We trust, nevertheless, that it will not be postponed. Is any time in the future at all likely to be more opportune? Nor need the cost (£1,629,000) be regarded as unduly high for such a notable improvement; and with the example of Kingsway in mind it would be reasonable to suppose that a great part of the expenditure would be ultimately recovered as a result of the enhancement of site values.

So far as concerns the physical loss involved, there is not much to regret—only, perhaps, the Lion Brewery (long derelict) and the Shot Tower, historically famous for the casting of the shot used at Waterloo. We wish that the scheme provided for the disappearance of the present Charing Cross Bridge (that "red oxide behemoth" as Mr. John Burns once called it); but, in any case, it is reassuring to learn that the present proposals will not hinder the construction of a new bridge in due time.

THE LOCATION OF INDUSTRY.

INDUSTRY to-day presents a peculiar anomaly which might be amusing were it not so serious. On the one hand we find the Government making efforts to attract industry to the Special Areas and on the other being faced with expensive schemes for creating fresh traffic arteries, largely due to the unwieldly growth of our cities. Especially is this true of London.

Now there seems to be in this anomaly sufficient *prima facie* evidence of the need for control by a responsible Minister or Department, and this proposal has, in fact, been made by the Trades Union Congress in evidence submitted recently to the Royal Commission on the Geographical Distribution of Industrial Populations. Control, if exercised, would have to be administered in a reasonable manner, and some form of appeal against exclusion of trades from any particular place would, we think, have to be given. But there seems little doubt that some form of control is, in the national interest, essential, and we await with considerable interest the findings of the Commission.

A REPORT OF PROGRESS.

A FORTNIGHT has passed since the President asked for his colleagues' support of the Architects' Benevolent Society.

The measure of that support—as shown by new subscriptions and donations—has been welcome but not shattering in its volume. Unless it must be inferred that architects do not consider their own charity as being something worth their interest and support, we can only suppose that the instinct to help, which must have been aroused by the sincerity and force behind the President's appeal, has been allowed (probably through the accident of an empty fountain pen or a mislaid cheque book—or even *vice versa*) to drop below that point where good will and action synchronise.

To such architects may we suggest that they do not wait for the bellman to speak thrice before proving truth, but make the filling in of a subscription banker's order or the posting of a donation their first job, not this afternoon or to-morrow but *now!* The word "mañana" means, according to the Spanish, "to-morrow." But you who read and we who write know the true meaning too often to be "never," and as a result, a lost opportunity to aid in a great and humanitarian work.

INTERCEPTING TRAPS.

THE question of the usefulness of intercepting traps in house drainage systems was lately raised in our Inquiry Bureau, and the number of replies received indicates a deep concern on this matter, which seemed to have been finally settled in the revised Model By-Laws. Two important points arise, one general and one particular. The general point is that, whereas architects have been consulted in connection with the revision of by-laws, there are certain matters which have presumably been treated as essentially specialist subjects, on which the practising architect could not be expected to contribute any useful advice. If we are right in this assumption, we can only say that the general practitioner in architecture, like his opposite number in medicine, often meets with experience which passes by the specialist, and that his voice should always be listened to with respect in all building matters.

We do not wish to imply that we are convinced one way or the other as to the necessity or otherwise of intercepting traps. The choice seems to be one between a sewerage system which treats the whole of the drainage from the house fitting to the sewage farm as a single unit, ventilated by a numerous array of minor vent pipes, and one which separates each domestic unit from the main system of sewers. There is obviously no logical reason for assuming that sewage demands any different treatment in the main sewer from that in the house drain. There is also a case for saying that the high standard of public health at which we have arrived to-day makes it inadvisable to exchange a practice which seems to have served us so well, for a new one which must be something in the nature of a leap in the dark.

Some public pronouncement seems to be necessary concerning the dangers of sewer gas. We are aware that typhoid arises from physical assimilation of germs by the human body. There is no general knowledge as to whether other diseases can be spread by the breathing-in of sewer gas. If it could be shown that sewer gas is innocuous to human beings, then this question would cease to have the importance which it at present appears to bear.

A definite reassurance upon this point ought to be publicly issued before a general change of practice is entered upon, and the opinions of architectural, sanitary and medical experts should be made known.

NOTES AND NEWS

Working-Class Furniture.

Mr. Walter Elliot, Minister of Health, opened this week, at the Building Centre, New Bond-street, an exhibition of furniture and furnishings from the working men's flats as exhibited by the Scottish Committee of the Council for Art and Industry at the recent Empire Exhibition, Glasgow.

Simplicity and good proportions govern the exhibits, and there are no unnecessary mouldings or machine carving, which is commonly found in furniture appealing to the working classes. If the examples exhibited are of a general standard, it is a high one, the drawers to the chests and cupboards working perfectly without jamming, which is so common with most of the cheap furniture.

Naturally, one looks at the price, which is quite reasonable, especially when one thinks of the poor type of french-polished furniture in so many homes. Construction and materials are sound. The designs are a credit to their designers, and provide what may be termed machine-made furniture designed by craftsmen.

The sitting-room furniture is in birch, one bedroom in mahogany satinwood finish, and a second bedroom in beech. Another sitting-room is in dark oak. Other bedrooms are in birch and ash. All the pieces are polished, and show the nature and grain of the woods used. With no unnecessary trimmings, the furniture would stand hard wear and tear. After the Arts and Crafts at the Royal Academy, here we have furniture for the masses of a satisfactory character, if they can be induced to see it. Pottery and crockery are also exhibited in simple and non-dirt-harbouring designs. Furnishings for a complete flat are shown. The exhibition remains open up to November 26, from 10 a.m. to 6 p.m.

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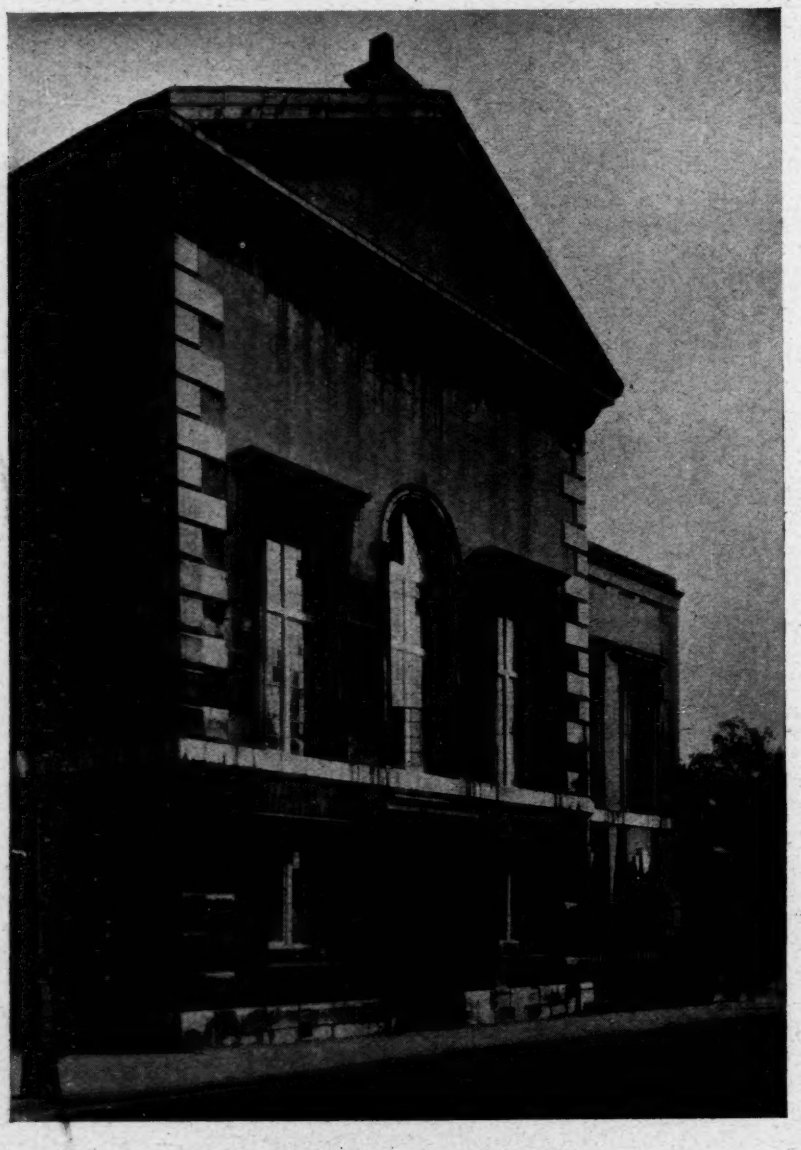
Leeds in London Architectural Society.

The inaugural informal dinner of L.I.L.A.S. (Leeds in London Architectural Society) was held at the Cheshire Cheese, Fleet-street, on November 10. About twenty members (who are ex-students of the Leeds School of Architecture) and their guests, were present, under the chairmanship of Mr. Raymond Walker, L.R.I.B.A., and a most pleasant and interesting evening was the result. Congratulatory messages were received from, among others, Mr. H. S. Goodhart-Rendel, P.R.I.B.A., and Mr. J. S. Allen, A.R.I.B.A., Head of the Leeds School of Architecture.

Such a society as this can do a good deal not only for its members, but also for architecture, and such activities as discussion groups and collective entries for architectural competitions are under consideration. Details of membership, which is open to any former students of the Leeds School, may be obtained from Mr. Richard Thompson, A.R.I.B.A., Hon. Secretary, 8, The Drive, Walthamstow, E.17.



MARLBOROUGH HOUSE CHAPEL.

DESIGNED BY INIGO JONES. See page 984.)

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S.P.A.B. and Historical Monuments Commission.

Comment on the selection of the date 1714 in connection with the work of the Royal Commission on Historical Monuments is made in the Quarterly Report of the Society for the Protection of Ancient Buildings, 20, Buckingham-street, W.C.2. The Report states that it has long been felt by those in any way concerned with the work of the Commission that the selection of this arbitrary date is by no means entirely satisfactory. "The President of the Institute (R.I.B.A.)," the Report continues, "stated that the year 1714 seemed to him a very arbitrary year to have chosen . . . . The President would want 'to preserve up to 1860,' which seems to us just such another arbitrary date. No one would question the President's implied view that there is much building worthy of preservation of a date between 1714 and 1860, just as there is, for example, between the dates 1646 and 1714."

The Report points out that it would seem that the terms of appointment of the Royal Commission included the phrase "from the earliest times to the year 1700," and adds that it is generally believed that the period of grace was extended by 14 years in order to include St. Paul's Cathedral, of which the last stone was laid in 1710.

The Report concludes: "Much as we deplore the fact that those superb volumes of reports of the Royal Commission contain descriptions of and references to nothing of the work of the eighteenth and early nineteenth centuries or even, for that matter, of the 1860 period, which the President of the R.I.B.A. would so much like to see included, it must at once be realised that the Commission for many reasons not generally known were obliged considerably to restrict the scope of their work."

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Cutlers' Hall, Bristol: Restoration Completed.

The Cutlers' Hall, part of the Dominican Friary in Bristol, which dates from the thirteenth century, was reopened on November 4, after restoration of the roof at a cost of £2,500. The roof, which is fourteenth-century work, had suffered very badly from the ravages of the death-watch beetle, and was in danger of collapse when the work of restoration was undertaken under the direction of Sir George Oatley, LL.D., F.R.I.B.A. From the year 1670 the Friary buildings have been in the care of the Society of Friends.

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The "Blue Circle" Players: A Forthcoming Production.

The combination of a good play, a fine theatre and a talented cast of actors is one which contains all the essentials for a good evening. Such an event is due early next month, when Dodie Smith's "Call it a Day" will be presented at the Cambridge Theatre by the "Blue Circle" Players, with a cast which includes: Mollie Thompson, Winifred Terry, W. Robertson Barlow, Brenda Kerrison, Gladys Hughes, Irene Beckett, Doris Aston, Kathleen Woods, Harry Holt, Diana Spain, Cedric Aldworth, Trevor Haselden Lewis, Ellen Rodway, Millicent Sterne, Dawn Bigg, and Bernard Temple-

man. The play is produced by Mr. Macaulay Eicke.

The praises of this company require no singing to those who have seen any of their nine previous annual productions; the present, the tenth, will open a run of four days at the Cambridge Theatre on Wednesday, December 7, at 8.30 p.m. Tickets—proceeds from which will be divided between the Builders' Clerks' Benevolent Institution and the I.C.W.A. Benevolent Fund—may be obtained from the Business Manager, Mr. Leonard Smith, at Portland House, Tothill-street, S.W.1 (Whitehall 2323).

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New York World's Fair, 1939: Presentation from London to New York.

A SILVER-GILT rosewater dish of modern design will be presented to the City of New York at the New York World's Fair next year by the Corporation of the City of London, with the twelve chief Livery Companies. Arrangements have been made by the Department of Overseas Trade for this to be exhibited in the British Government Pavilion at the Fair. In the same section will be shown part of the Ceremonial Plate which was seen at the Goldsmiths' Hall Exhibition of Modern Silverwork this summer, and some of the antique plate of the City Companies.

At the request of the Lord Mayor and Corporation a competition for the rosewater dish is being organised by the Wardens' Silver Committee of the Worshipful Company of Goldsmiths. The competition is open to all designers. The total cost of the work will be £250, in which will be included the designer's fee. Prizes of £25, £10 and £5 will be awarded. The Wardens' Silver Committee of the Goldsmiths' Company will adjudicate on the designs, which should be sent to the Clerk of the Goldsmiths' Company, Goldsmiths' Hall, Foster-lane, London, E.C.2, before December 10. The finished work will be required early in March, 1939. Full particulars of the competition may be obtained from Goldsmiths' Hall.

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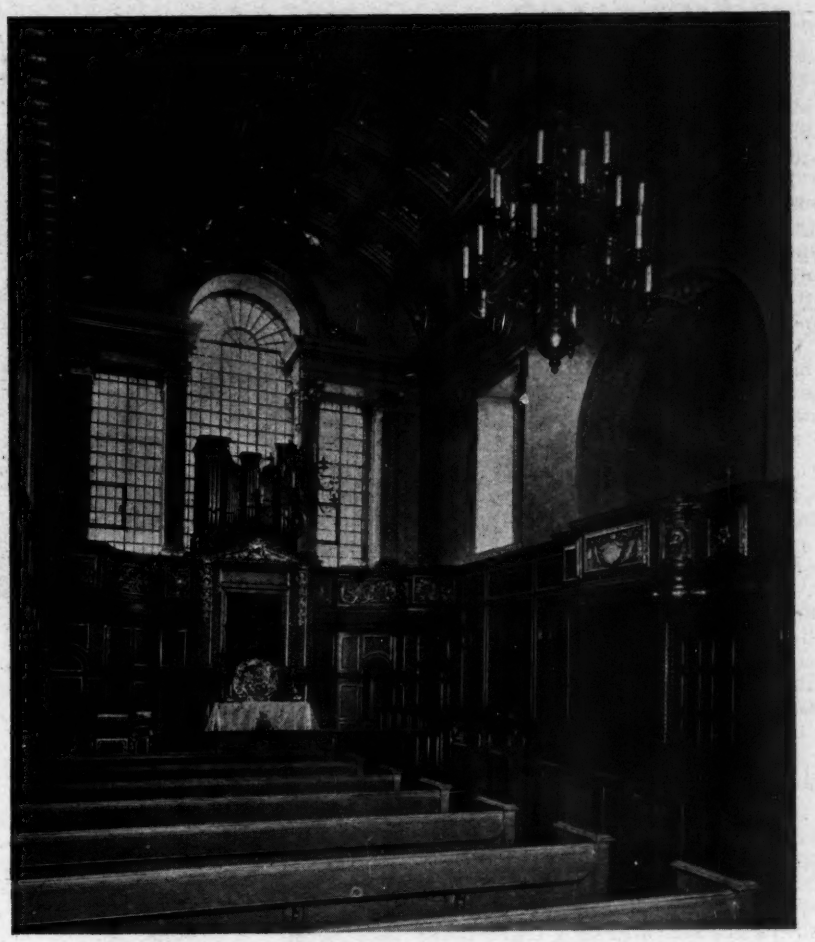
Beautification of Birmingham: Civic Society's Report.

THE comments of the City Surveyor in support of the proposal that a sum of £1,000 should be set aside each year for the purpose of increasing city amenity are given in the Report of the Birmingham Civic Society, 1937-8. The City Surveyor states ". . . .the question of location has to be considered, *i.e.*, whether the centre of the city shall have priority in treatment to the suburban districts. It would seem that the older parts of the city have first claim, as, owing to the haphazard development which took place in the city in bygone days, the questions of architecture and proper planning were not given that thought which is more existent today, with the result that the older part of the city is sadly lacking in features of beauty. . . .

"£1,000 a year is not a large sum of money, and a point for consideration is whether (failing a larger grant) it would not be advisable for this sum to be accumulated over a period of years to enable schemes of greater size to be considered from time to time. Examples of what might be achieved are: The alteration of the one-way traffic scheme in Victoria-square, and the reshaping of the central island; the introduction of a permanent column in stone somewhat on the lines of the temporary column erected for decorative purposes for the Coronation; the removal of existing statues to more appropriate places; and the use of floral decoration. Other suggestions of the Civic Society for the alteration of Chamberlain-square are: opportunities for suitable groups of statuary in the new Civic Centre; the removal of the railings surrounding St. Phillip's churchyard; and elsewhere the provision of groups of statuary and fountains."



MARLBOROUGH HOUSE CHAPEL: VIEW LOOKING EAST.

(See page 984.)

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An Architect's Estate.

MR. PAUL HOFFMAN, who died on August 19, aged 69, left property of the gross value of £13,719, with net personalty £7,730.

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Gold Medal for Sculpture.

THE Gold Medal for Distinguished Services to Sculpture has been awarded to Mr. Sigismund Goetze by the Royal Society of British Sculptors. The previous recipients of this award, founded in 1923, have been the late Sir Hamo Thornycroft, the late Sir Alfred Gilbert, Sir William Reynolds-Stephens, the late Captain Adrian Jones, and Lord Duveen.

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B.I.F.: A Park for Six Thousand Cars.

ONE of the biggest car parks in Europe is now being completed at Castle Bromwich, Birmingham, in readiness for the 1939 British Industries Fair in February. More than 1,000 tons of slag, consisting of the metallic residue from Black Country furnaces, is being laid down on 6½ acres of ground adjacent to the Fair building, giving, in all, a car park area of 30 acres, capable of accommodating 6,000 cars. Owing to the arrangement of the new car park, which is intersected by planned roads connected with the main highway, it is estimated that, even on the busiest day of the Fair, 6,000 cars will be cleared within the hour.

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A Memorial to Joseph Aspdin.

A PLAQUE and gates will be formally presented to the Vicar of St. John's, Wakefield, in the presence of the Bishop of Wakefield, on Thursday, November 24, by Viscount Wolmer on behalf of the cement industry. The plaque and gates will perpetuate the memory of Joseph Aspdin, the inventor of Portland cement, who built his first works in Wakefield, and who is buried in the St. John's churchyard. The ceremony has been arranged by the Council of the Cement and Concrete Association.

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An Appointment Vacant, Wakefield.

WAKEFIELD City Council has confirmed a decision to amalgamate the offices of City Surveyor and Housing Architect at present carried out by two officers, whose retirement is pending. The present Housing Architect is Mr. S. Hutton, and the City Surveyor, Mr. L. Ives. It was resolved that applications should be invited by advertisement for the post of City Engineer and Architect at a salary of £1,000 per annum.

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Professional Announcements.

MR. B. IVOR DAY, A.R.I.B.A., and MR. T. H. B. BURROUGH, A.R.I.B.A., partners of the late Mr. G. C. Lawrence, R.W.A., F.R.I.B.A., will continue the practice as Messrs. G. C. Lawrence and Partners, as formerly, at 25, Orchard-street, Bristol, 1.

MR. A. S. E. ACKERMANN has been elected an Honorary Fellow of the Society of Engineers (Inc.).

FROM FLEET STREET TO TORRINGTON SQUARE

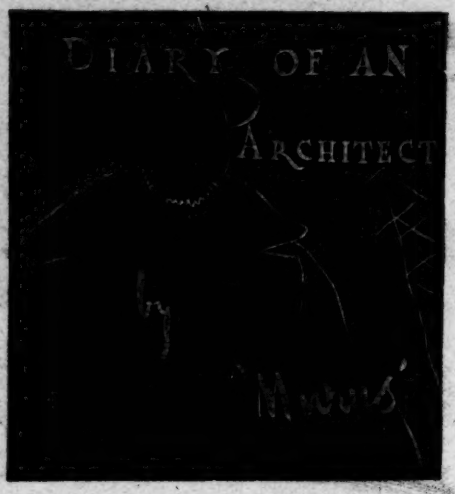
November 11.—Judging by a menu-cover lying in front of me, I appear to have spent most of last night "doodling." Surrounding the descriptions of food (incidentally it was steak, game, and oyster pudding), is a series of spiral shapes—the sort of shape that an aeroplane might create if it constantly looped the loop. The hole of every other loop is filled in with pencil. The zig-zag shapes are superimposed on the loops, and altogether I believe a psychologist would say that I was in a state of nervousness at being asked to speak in public.

The occasion was the inaugural dinner of the L.I.L.A.S. (Leeds in London Architectural Society), which I mentioned a week or two ago, and the meeting took place in "The Cheshire Cheese," Fleet-street. It was disappointing to find that a number of old Leeds people had not turned up. If they happen to read this note, I hope they will display some sort of enthusiasm in the near future. I am not particularly keen on societies of any kind, but this one does appear to be serving a very good purpose or set of purposes. Therefore it ought to be started well.

In the chair was RAYMOND WALKER—verbose, brimming with confidence, and exchanging repartee with E. J. CARTER, of the R.I.B.A., who was present. A good many of the speakers, naturally, were Yorkshiremen, and although I personally am used to the dialect, my neighbour surprised me by obviously finding the accent of the speakers of infinitely greater interest than the content of their remarks. This content, collectively, reduced itself to the desire of the Society to enter competitions in group form, to sponsor a register of architects' offices where employment might be obtained in London, and to discuss architectural matters from time to time.

This talk of an office register, by the way, led Carter to remark on the increasing unemployment among architectural assistants, and he seemed to be pretty certain that some sort of repetition of 1931 might take place.

N.B.—*To-day is Armistice Day, and I have been telephoned by Kenneth Dalgleish for the particular purpose of being asked to mention the railings at the Cenotaph, added recently from*



designs by Sir Edwin Lutyens. The point is that Dalgleish feels they are like a set of fire-irons, and another point is that he likes Lutyens's designs as a rule.

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November 12.—There is no reason other than a sentimental one to bring up an anniversary; but, on looking through my scrap-book, I see that to-day is the anniversary of the birth of the "Diary of an Architect." On November 12, 1937, the first modest publication appeared of what has become a fascinating job. I began the Diary as follows:—

"The writing of a diary, a seemingly easy job, is not nearly so simple if the matter is to be published. The very decision as to whether one should be truthful and possibly rude, or polite and possibly hypocritical, is not easy of solution; though, apart from being libellous, it is poor thinking to be rude in the name of Truth.

"I have come to the conclusion that to be constructive is the only possible way; to be destructive is not enlightening, nor does it make particularly good reading. The disguise of a *nom de plume* might appear as making all things possible, but I am not sure whether it does not involve a stricter code of decency.

"In addition to being constructive, I shall write in a personal way about personal things. The subjects may be books, or they may be personalities. They may even be surrealist paintings, or they may be abstract thoughts on abstract matters. In short, the diary will consist of what one architect feels to be interesting to all architects; hence the title 'Diary of an Architect.'"

To be perfectly frank, I have rarely remembered this neat piece of philosophy, and on looking back I have been occasionally rude, frequently flippant, but not, I firmly believe, libellous. It would be amusing and interesting one day to publish privately all those things I have said about architects and artists which the Editor in his wisdom has marked out with a blue pencil. You must realise that truth in journalism is frequently a dangerous thing. I do not know whether we, as a profession, are more sensitive about ourselves than most, but I would wager that the lawyer, for instance, would welcome criticism more happily than does the architect. Not because I am different, but merely because I am an architect, I should welcome criticism, preferably of a constructive nature.

Looking through the pages of the 52 issues of the Diary, I see I have talked about everything from museums to scholarships, from plays to architectural drawing. Now I want to extend the scope of the Diary, and my feeling is for a page more in the nature of a scrap-book. If I were the reader of the Diary I would like to see such things as the strange drawings of SIR EDWIN LUTYENS; the signature of LE CORBUSIER; the architecture of Timbuctoo (incidentally of a very high order); perspectives of buildings not yet built; the photographs of those prominently in the news; the funny cartoons of the "New Yorker" relating to architecture; the strange architectural tastes of the great; the architectural follies which abound in England; the quotations of the famous on architecture and its allied arts; the ideas that readers might have. All these things should go into the making of an entity of greater value than pure descriptive matter. I would, quite frankly, like your opinions on the subject—I give you *carte blanche* to be rude, provided you are also constructive; and present you with an opportunity for drawing what you like, provided the drawings are not rude.

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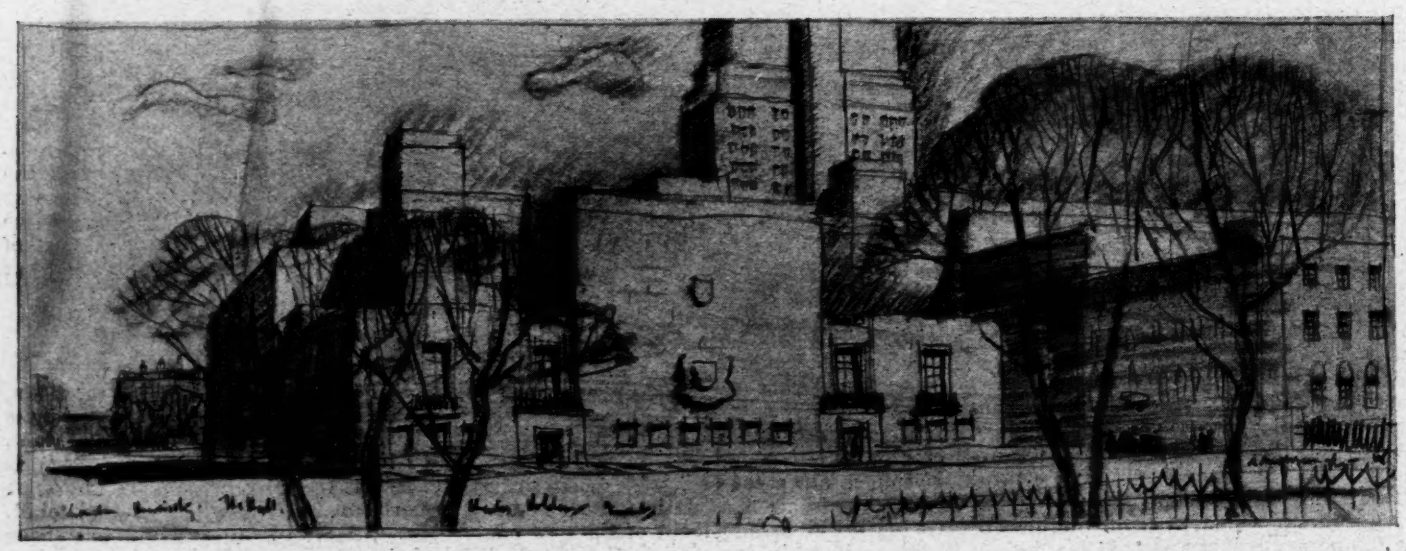
Sculpture and architecture came into the news in a curious way last week, principally by the exhibition of DORA GORDINE's sculpture at the Leicester Galleries.



LONDON UNIVERSITY: AN IMPRESSION.

MENU COVER
Of the L.I.L.A.S. Inaugural Supper.

The head of VANDERPANT (which has been unveiled at the R.I.B.A.) was one of the exhibits, and there was a head, too, of GOODHART-RENDEL. As far as the works of Miss Gordine are concerned, there is a curious mixture of MAILLIOL, and a style one can best describe as Eastern; which is interesting, but which does not contain the profundity of either source of origin. This preoccupation with sculptured heads always rather surprises me, as there is something very mausoleum-like in an array of bronze busts.

CHARLES HOLDEN was there, and he is one of the few architects I know who possess a lively and quite sincere interest in the arts, particularly in sculpture. He is, of course, a great admirer of JACOB EPSTEIN, and his offices at Hyde Park Corner (now given up in favour of Torrington-square) were remarkable for the elegant flat over them, which possessed one or two heads of Holden's friends by Epstein; and some exquisite drawings by MUIRHEAD BONE. The choice of these two artists shows a high standard of appreciation in the mind of Holden; and it is a curious fact that he was an admirer of both people long before they received recognition. Bone is an old friend of his, and now the finest architectural draughtsman in this country.

Epstein owes Holden a debt of gratitude for the simple reason that it is due entirely to him that opportunities have occurred for architectural sculpture on public buildings.

There is a general feeling that Epstein has been responsible for a number of jobs in this country, and from various sources; but the real truth is that he has only performed this function of architectural sculpture on three occasions—one was the British Medical building in the Strand in 1908; the other two were the Hudson Memorial in Hyde Park, known as "Rima," and the two figures of "Night and Day" on the St. James's Park Underground building. These are the broad limits of his architectural commissions, and they all emanate from the office of Charles Holden, or ADAMS, HOLDEN AND PEARSON.

What is happening about the University in relation to sculpture I am not quite sure. I have prepared a number of drawings for Holden of the subject, and the sculpture so far has been left in an abstract form, almost like a designed piece of "boasting," which is the work of HENRY MOORE. Whether this sculptor will execute the finished carvings is not known; in any case, nothing will be done for the next few years, and I have a shrewd idea that Mr. Epstein is a little too robust for the University authorities.

In some ways it surprises me that Epstein has not been more widely used, in spite of his notoriety about architectural carving. He has a fine sense of architecture, and I would describe the figures of "Night and Day" as being in themselves a complete piece of architectural designing. His terrific emotional impetus, the quality which is most criticised, obviously is dominant; and as far as I am concerned, quite an attractive one, in so far as it displays a wealth of emotional freedom not possessed by the average artist, and particularly the architectural carver, whose sense of reasoning and technique does tend to overwhelm his æsthetic conception.

I know Epstein well, and he is essentially a person of a high degree of culture and tremendous integrity. One can understand his work being over the heads of the lay public, but it shows a direct lack of æsthetic appreciation that architects as a whole should misunderstand his intentions. Incidentally he is holding a show of recent drawings at Tooth's in the next week or two.

* * *

And, talking of sculpture and Holden, there is also the extension of the London University design, which is now almost settled and ready for building. The City of London presented the University with sufficient money to build the University Hall; and on facing page is a preliminary drawing which MYERSCOUGH-WALKER recently prepared for the Russell-square façade. It is rather more bold in conception than the first part of the work, and will complete the composition around the Tower. In working on these drawings, M.-W. was surprised, he tells me, how slightly the design has been altered since its first whole conception a few years ago. As a piece of highly organised architecture this job must certainly be admired.

Mwms

Incorporated Church Building Society: Honorary Architectural Appointment.

PROFESSOR A. B. KNAPP-FISHER, F.R.I.B.A., has been elected a member of the Committee of Honorary Consulting Architects of the Incorporated Church Building Society.

***

Air Raid Precautions: Strengthening Ground Floors of Buildings.

THE A.R.P. Committee of Westminster City Council has made representations to the London County Council asking the latter "to take steps to ensure that the ground floor of all new buildings in London shall be capable of withstanding the weight of the building should it collapse, and, if necessary, to seek further statutory powers for this purpose, and pending the passing of such legislation to use its influence with persons erecting new buildings to secure the same object."

CORRESPONDENCE.

[While we are glad to publish letters on professional and other matters of interest to our readers, it must be understood that we do not necessarily endorse the remarks of correspondents, who will oblige us if they will express their views as briefly as possible.]

"Metropolitan Melange."

To the Editor of THE BUILDER.

SIR,—Mr. Thomas Walley's letter to "Murus" in your last issue deals with a subject which I found of considerable interest. The improvement of London by the unmasking of certain buildings would be a most intriguing occupation for anyone, and particularly as a kind of comic relief to those engaged in the serious day-to-day business of seeing that new buildings comply with town planning provisions.

Site value in the economic state of to-day is probably the only real stumbling-block, but even that can be got over, as witness by those engaged on the Tower-hill Improvement Scheme. On the other hand, such things can only be achieved by unrelaxing effort, and as the officially appointed authorities have their hands pretty full with activities—ranging from supplying free milk to school children to bridging the Thames—it is small wonder that Time and Inspiration have worn a bit threadbare before detailed replanning gets a look in.

Perhaps a solution lies in a public boycott of the offending buildings, so that they stand vacant and ashamed until their values fall to a level when acquisition and tidying-up can be considered.

The sad facts of to-day—such as Mr. Walley, quite properly as an engineer, and so sensibly, draws attention to—might be rectified if a section of the community as numerous as that which, since "the War," has developed an intelligent interest in flower-gardening, would take an equivalent interest in the environment outside its immediate gates. After all, planning and replanning are much the same in principle as gardening. All Mr. Walley is asking is that the weeds shall be dug up to give the hybrid plants a chance of being appreciated.

As for the original intentions with regard to Somerset House corner and the Gordon Square Apostolic Church site, at least we are rich in libraries and records and old plans.

JOCELYN F. ADBURGHAM,
L.R.I.B.A., A.M.T.P.I.

COMPETITION NEWS

CURRENT COMPETITIONS.

	Particulars published in "Builder,"	Sending in date.
Municipal building, Brierley Hill, for U.D.C. Mr. Verner O. Rees, F.R.I.B.A., assessor. Premiums: £250, £150 and £100. Conditions (dep. £2 2s.) from Mr. F. Oakes, Clerk of Brierley Hill U.D.C., Council Offices, Moor-street, Brierley Hill. Questions by June 30	June 3 June 10	Nov. 30
New Town Hall, Newcastle-upon-Tyne, for C.C. Mr. Verner O. Rees, F.R.I.B.A., assessor. Premiums: £750, £500 and £300. Conditions, etc. (dep. £2 2s.) from the Town Clerk, the Town Hall, Newcastle-upon-Tyne, 1. Questions by July 13	June 24	Dec. 31
Senior School, Broom Hall, Shrewsbury, for Shrewsbury Corporation. Mr. C. Cowles-Voysey, F.R.I.B.A., assessor. Premiums: £200, £150, £100. Conditions, etc. (Dep. £1 1s.), from the Town Clerk, Guildhall, Shrewsbury. Questions by Sept. 10	Aug. 5	Jan. 3

APPROACH TO PLANNING

BY FRANK BENNETT, A.R.I.B.A.

X.—THE GOLF CLUBHOUSE.

GOLF clubhouse design offers the architect splendid opportunities. The site is likely to be open and free, and the architect will not be bothered by rights of light, by having to squeeze much accommodation into too small a space or by having to sacrifice part of the site for open areas. Boundaries are not likely to be fixed and probably a choice of position offers itself for the new building. The architect may enjoy the rare experience of being able to choose the perfect spot for both pleasing views and good approaches. The building required is likely to be of a size, in the planning, not too small to be niggling and yet not too large to be cumbersome. The clients, while they set aside a limited sum of money, probably will not mind finding more money, especially if the architect produces a good idea to justify additional expenditure. Coming to the treatment of plans and elevations, again the architect can enjoy a certain feeling of freedom. Plenty of precedent exists which he can follow or which he can ignore, more or less as he wishes.

The buildings in the surrounding neighbourhood may offer a character of design suitable for adaptation, but something in closer contact with the spirit of the club may be preferred.

The golf clubhouse, while an old, is still a sufficiently new type of building to permit of daring experiment—always, of course, within the veto of the clients.

The rooms which normally comprise a golf clubhouse vary in no strict relationship to the size of a building, but according to the requirements of a particular club. One club may want a billiards room while another club prefers a ladies' room instead, or both. For the purpose of grasping the idea of the accommodation it will be convenient to think of the rooms not as a somewhat confused group, but as being divided into two sections. One section I will name the "living" section, and the other the "administrative" section.

The living section may comprise the whole or part of the following:—Lounge, with loggia or verandah; dining-room; bar; smoke room; card room; ladies' room; billiards room.

While every clubhouse must have one big room which is usually styled the "lounge," a separate dining-room is not absolutely essential. It can be incorporated with the lounge. But no self-respecting golf clubhouse can do without either a loggia on the ground floor, approached direct from the lounge, or a verandah on an upper floor. Neither can it do without a bar, although this is for other reasons. Men usually want a smoke-room to themselves in order to avoid mixed company. The women, on their part, are not so particular and will gladly share the use of the lounge if no special room is available. Whether or not to provide the luxury of billiards and card rooms depends on two things, the supply of funds and the particular habits of the club.

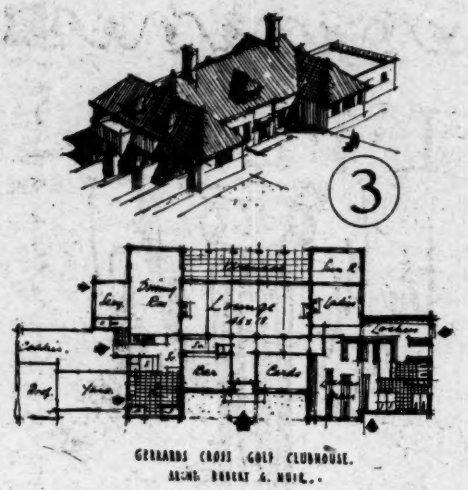
The architect, in addition to facing all rooms of the living section towards the sun if he can, also gives such rooms the best possible outlook. He makes the lounge high and long, and the dining-room nearly as large on plan as the lounge, but not necessarily so high. He remembers to put in, additional to the above list, not only an entrance hall, but also a separate room for the club secretary, whose presence is as important to the welfare of the architect responsible as it is to the club.

Under the heading of "administrative," the second section, the whole or part of the following may be required:—1. Locker room for men, locker room for women; 2, lavatories, etc., for men, lavatories, etc., for women; 3, kitchen with servery, pantry, scullery, larder and store; 4, flat for secretary or steward comprising living-room, three bed-rooms, kitchen and bath; 5, professionals' room and shop; 6, car parking space.

Lavatories take a form normal for other buildings, but shower baths may be included. The kitchen with its attendant rooms, while taking a position adjoining the dining-room, should link with the bar as well, the link being made by means of a hand lift if the bar be located on an upper floor. The professionals' room and shop for the sale of clubs and golf balls need not necessarily form part of the main building, but can be detached and placed in a position easily accessible from the first tee. Caddies do not need a special room; a shed will do for them.

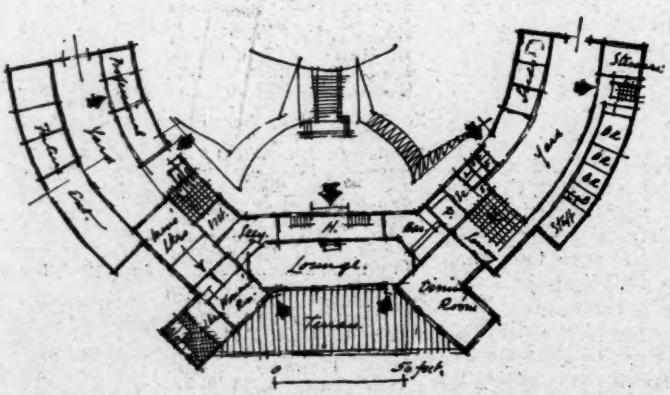
While it is not usual to provide lock-up garages except for a resident secretary, a good parking space near the main entrance is essential. This might conveniently be incorporated with the "drive-in," and instead of being given just an odd space can be arranged as part of the design scheme.

A golf clubhouse building needs an easy-going feeling about it, not rough and tumble like some old farmhouse, but gentle and strong, like a good country house. It needs the feeling of being connected with out-of-doors, of people coming in in heavy boots and tweeds and going out again. Golf being a winter as well as a summer sport, large fireplaces and ample space for fat armchairs are

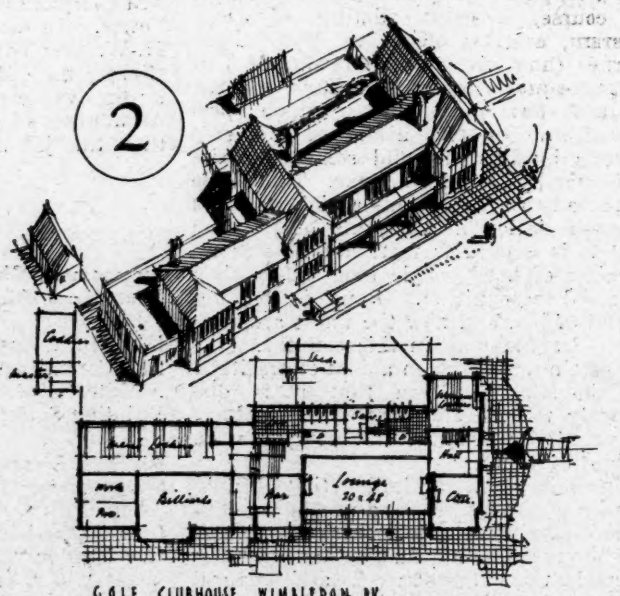


GERRARDS CROSS GOLF CLUBHOUSE.
ALAN BRIGHT A. MOTT.

1 ASHRIDGE PARK GOLF CLUBHOUSE.
W.S.GRICE AND DENNIS POULTON. ARCHTS.



ASHRIDGE PARK GOLF CLUBHOUSE.
W.S. GRICE AND DENNIS POULTON
ARCHITECTS.

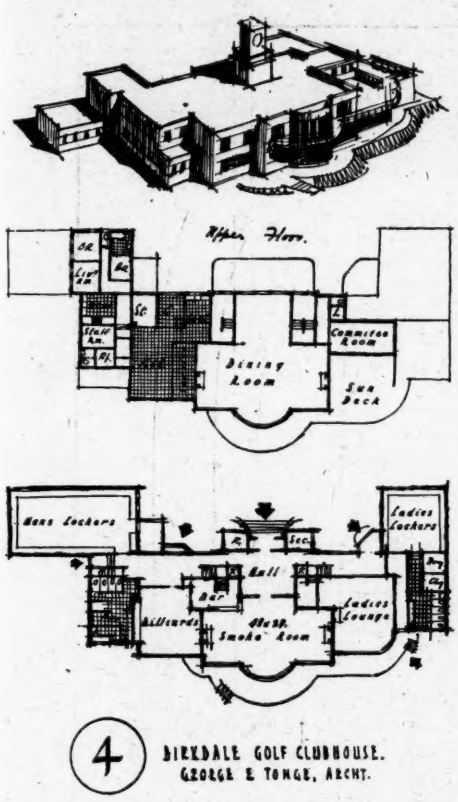


GOLF CLUBHOUSE, WIMBLEDON PK.
ARCHT: P.D.M.WOODHOUSE.
1935.

as necessary as loggias and large window areas. The building is one which asks to be planned around the members and not around some architectural pre-conception.

A golf club is quite a different thing from a "country club." While people play golf in addition to other games at a country club, the life in it is much more mixed and setting out to be more social than that of a golf club.

Turning to the illustrations, we see that a butterfly plan is the most attractive feature of the Ashridge Park Golf Clubhouse (No. 1). Planning and building design is apt at times to be such a rigid, constructing affair that the sight of such an open, flung-out plan comes as a great joy. There is every evidence in this plan not only of good proportion but of excellent control. It is symmetrical and yet not symmetrical, two halves balancing more or less in mass, but differing in the nature of accommodation provided.



4 BIRKDALE GOLF CLUBHOUSE.
GEORGE E TONGE, ARCHT.

Considering the building again as a composition, apart from its stylistic treatment, we notice how the substance of it seems to move downward with, rather than to resist, a fall in the site. The building begins in a small way at two high points on the site and then, gathering itself together, finishes as a large bulk down below. The front takes the form of a sun-trap, one which, although not always pleasing in a small building, is successful in this comparatively large building. The side wings act like buttresses receiving the weight of the structure thrusting downward.

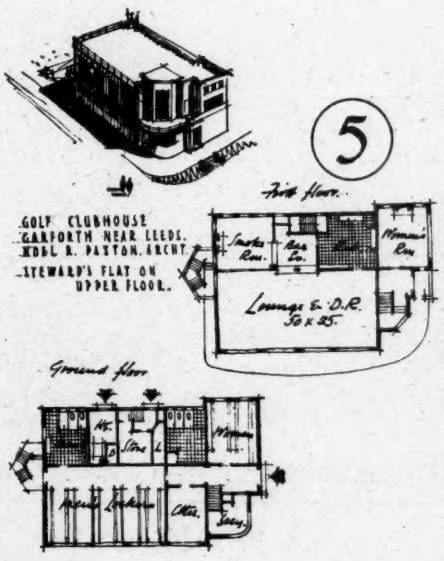
The Wimbledon Park golf clubhouse (No. 2) differs from Ashridge Park in being a two- instead of a one-storey building. It covers a smaller site, but provides larger accommodation. For utility as well as circulation and disposition of rooms this plan is splendidly worked out. There is no nonsense about it: it keeps close touch with reality. While all service rooms, sanitation and lockers are packed along the back of the building facing towards the least desirable aspect, the utmost is made of the sunny sides, and nine good rooms take positions in the front of the building and look out over the golf course as well. The main entrance is placed on one side of the building instead of at the back, as at Ashridge Park. This arises from a free and "picturesque" type of plan which involves a long corridor and two big stairways, and at the same time provides a fine opportunity to gain the utmost in contrasts and surprise effects. However, it must be recognised that four large rooms in one plan—lounge, billiards, smoking and dining-rooms—all required to be very much of the same size and shape, do not leave a designer much choice of arrangement in the plan.

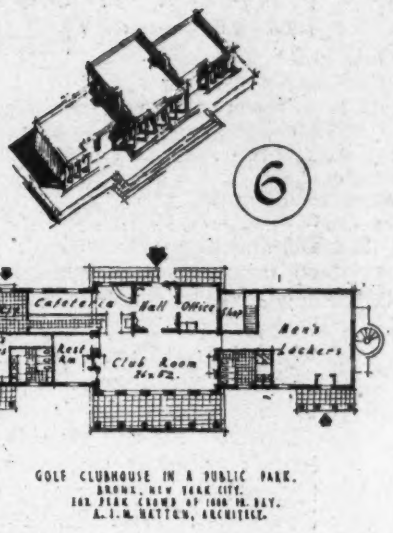
The superstructure of the building is a form which rises logically off the plan, and the treatment of it follows a country house style of architecture, which pleases if it does not thrill most people.

No. 3, the Gerrards Cross Golf Clubhouse, although not a very large building, manages to look rather grand. The grandeur arises from a symmetry which is quite complete in the main structure and nearly complete in the wings. It is a steady, sane sort of building, which by means of a tall roof and still taller chimney stacks is given prominence on a normal kind of site. Women's lockers and men's lockers do not, as a rule, find a position on plan quite adjacent to one another as they do in this plan, but two locker rooms are bound to come fairly close together in a small one-storey golf club-house if the lounge is placed in the middle of the building. The dining-room and the kitchen take a side opposite to, and balancing, the locker rooms.

On plan it will be seen that the locker rooms of No. 4, at Birkdale, take opposite sides of the building, the kitchen service, together with the dining-room, going upstairs. The main room on the ground floor, unlike the main rooms in Nos. 1, 2 and 3, is called a "smoke-room" instead of a "lounge," and the two smaller rooms which flank the smoke-room are devoted, one to the women and one, a billiards-room, to the men. What special accommodation to provide in a clubhouse for women apart from general rooms constitutes a knotty problem. If the men have a special room to themselves why not the women, too? From a study of the plans illustrated it seems that each club represented has a different point of view on this subject, and that no hard-and-fast rule can be laid down.

Building No. 5, the Golf Clubhouse at Garforth, which stands on a low-lying site, was designed as a tall building to give an extensive outlook. The main rooms, normally placed in other buildings on the





GOLF CLUBHOUSE IN A PUBLIC PARK.
BRONX, NEW YORK CITY.
FOR PARK COMMR OF 1000 M. DAY.
A. I. M. RATTEN, ARCHITECT.

ground floor, go to the first floor in this building. Then above this there is a third storey, which contains the steward's quarters and gives on to a flat roof. The stairs at the far end take the form of a half-pentagon enclosed with glass.

The American, No. 6, is attractive at first sight, but less pleasing on close examination. The symmetry on plan makes a quick appeal, and the ordered rhythm of the classical façade, like that of soldiers marching along a street, stirs one's emotions. But the units of the plan, differing on each side of the cross axis, do not lend themselves to the confinement caused by the rigidity of the exterior. Rooms are squeezed and distorted to go into a preconceived shape like square pegs forced into round holes. A space provided for the cafeteria exposes the big weakness; the cafeteria spreads from a low wing into the high centre portion of the building as if trying to ignore one of the main structural walls.

* * *

It would be arbitrary to lay down specific sizes for the compartments of a building of this class: a study of actual examples will provide the best source of information.

(To be continued.)

"THE SPORTS PAVILION."

To the Editor of *The Builder*.

Sir,—In *The Builder* for November 4 there is a very interesting article by Mr. Frank Bennett on the Sports Pavilion.

In the reference to the Cricket Pavilion designed by me for Mill Hill School a rather wrong impression is given in regard to the washing and sanitary arrangements. At this school these are arranged in a most thorough manner adjacent to the school swimming-bath, where showers, hot and cold, plunge and other baths, are provided for cricketers and footballers. This washing accommodation was already in being when I was instructed to design the Cricket Pavilion. It was therefore unnecessary to include it in the design of that building.

I should be glad if you would publish this note of explanation in regard to this pavilion.

R. S. Balgarnie Wyld.

31, Bedford-row, W.C.1.

[We very much regret that, owing to lack of the information now provided by our correspondent, a wrong impression should have been given about the Mill Hill Pavilion. Our contributor asks to be allowed to associate himself with this expression of regret.—Ed.]

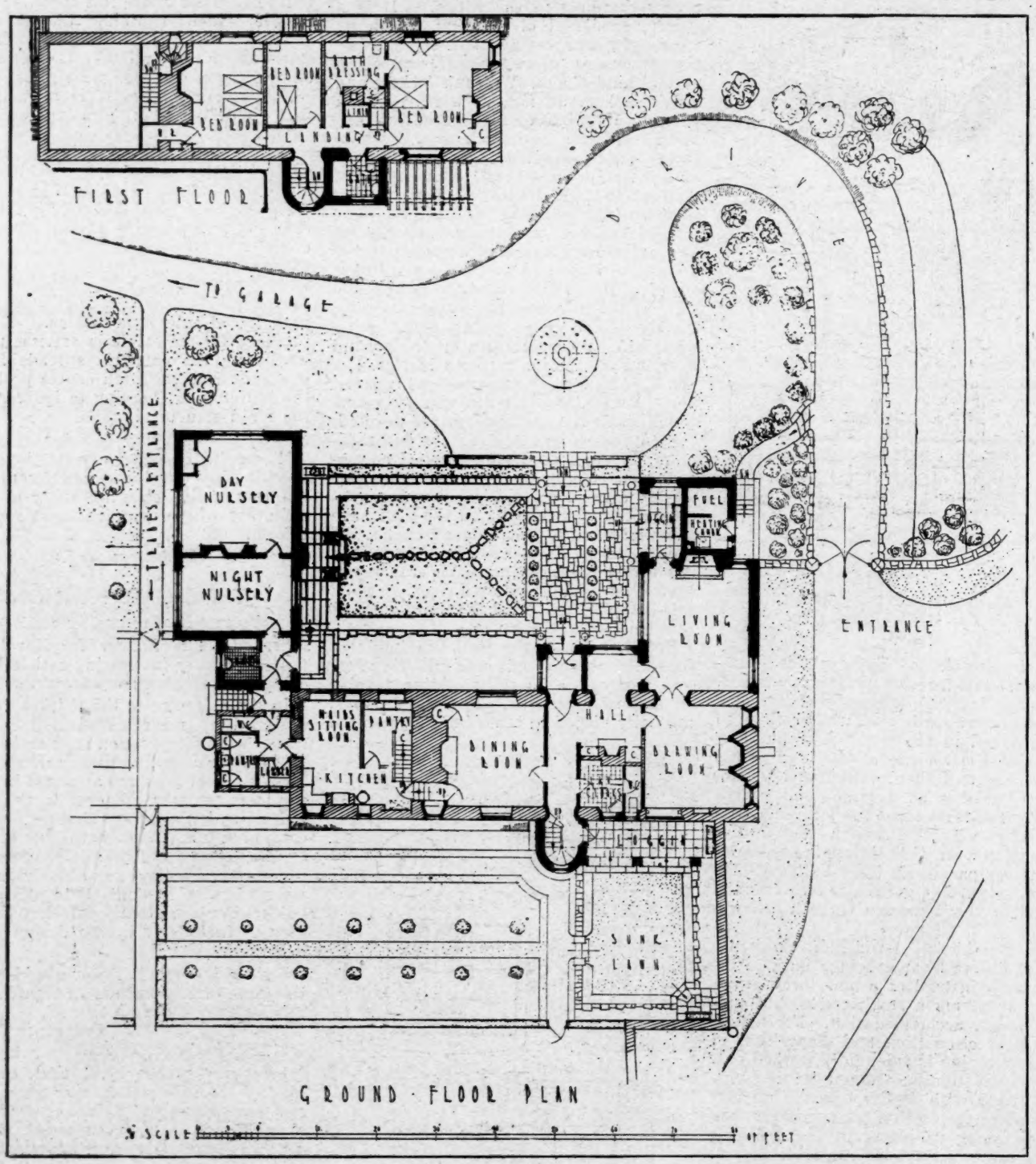
MANOR HOUSE FARM, HEADINGTON, OXFORDSHIRE

MESSRS. COLLCUTT AND HAMP, F.R.I.B.A., ARCHITECTS.

The problem of adapting and extending the old houses and farm-houses in the Cotswold country is one calling for sensitiveness of treatment and a special knowledge of local conditions. The type of plan arising out of the communal form of life usual in farming districts often makes it difficult satisfactorily to subdivide big rooms into the larger number of smaller units required in the house for normal occupation to-day. This, often enough, necessitates additions which require an experienced hand if neither convenience nor a sense of unity with the old work is to be sacrificed.

An example of how this problem has satisfactorily been handled is shown in the additions to Manor House Farm, Headington, carried out for Dr. R. H. Rose-Innes. The centre portion (see facing page) is the original building, and the additions first made comprised the new porch and the sitting-room and loggia adjoining. The later addition is the wing at the other side, which is a nursery block—both wings being single-storey—which leaves the old part as the dominant. The main entrance is flanked on either side by a formal garden. The materials are Cotswold stone for the walls, the roofs being tiled. The sitting-room, seen on page 972, is panelled in oak, and a feature of the interior is the staircase which has a simple but pleasant wrought-iron balustrade.

The general contractors were Messrs. Benfield and Loxley, Ltd., of Oxford. Sub-contractors engaged in the work comprised : panelling, Samuel Ellio.t and Sons (Reading) Ltd., Reading ; heating and hot water, and electric light, Fred G. Alden, Oxford ; metalwork, Adrian Stokes and Co., London ; and tiling, Carter and Co., Ltd., London.



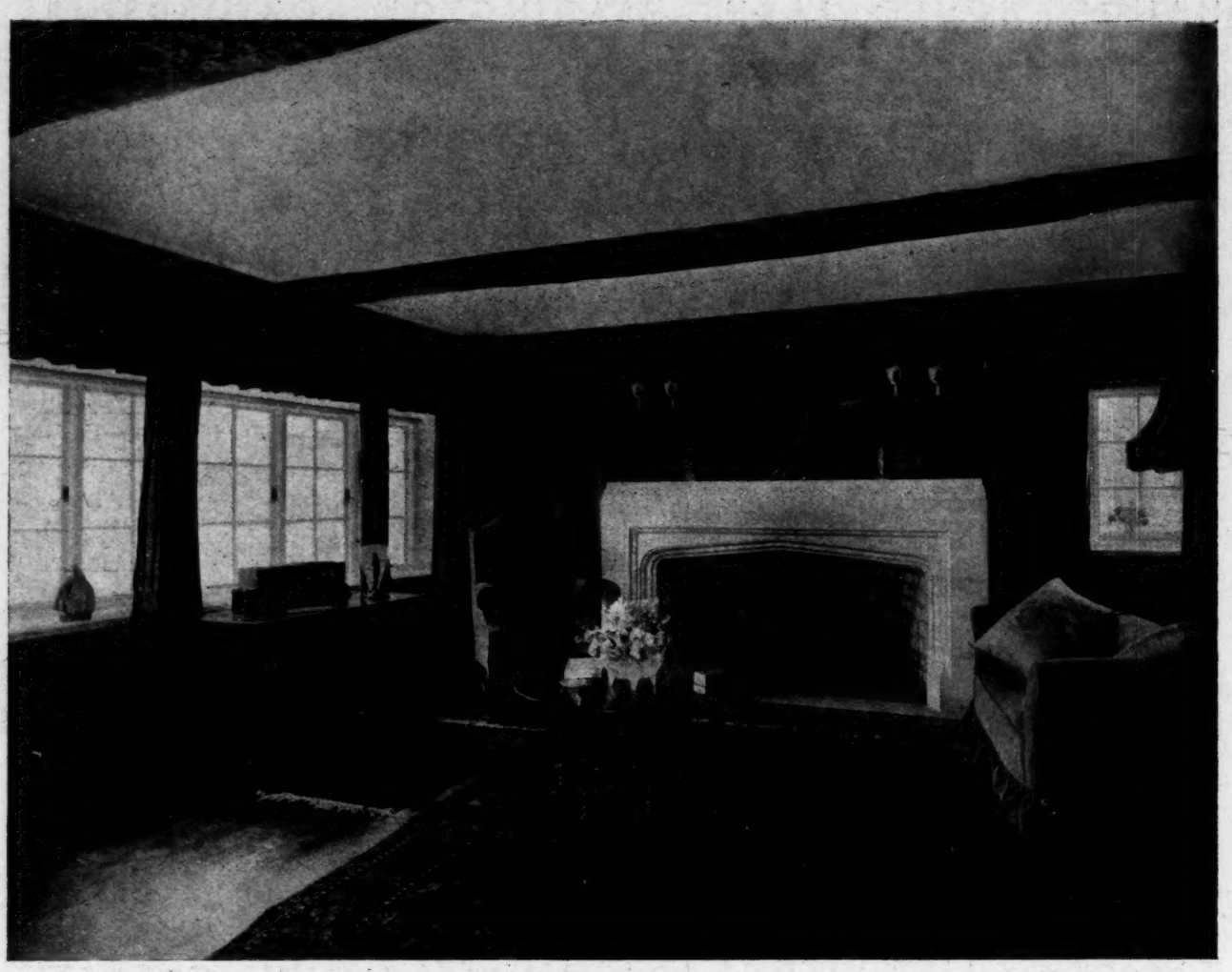
THE PLANS.

MANOR HOUSE FARM, HEADINGTON, OXFORDSHIRE

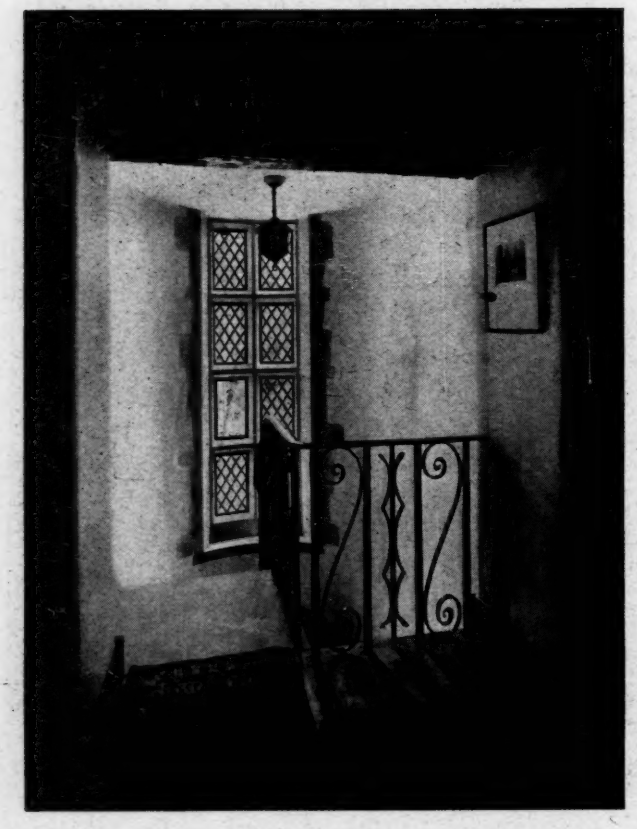
MESSRS. COLLCUTT AND HAMP, F.R.I.B.A., ARCHITECTS.

GENERAL VIEW, SHOWING OLD PORTION (CENTRE) AND SUBSEQUENT ADDITIONS.

VIEW SHOWING FORMAL GARDEN, PORCH AND NURSERY BLOCK.



THE SITTING-ROOM.

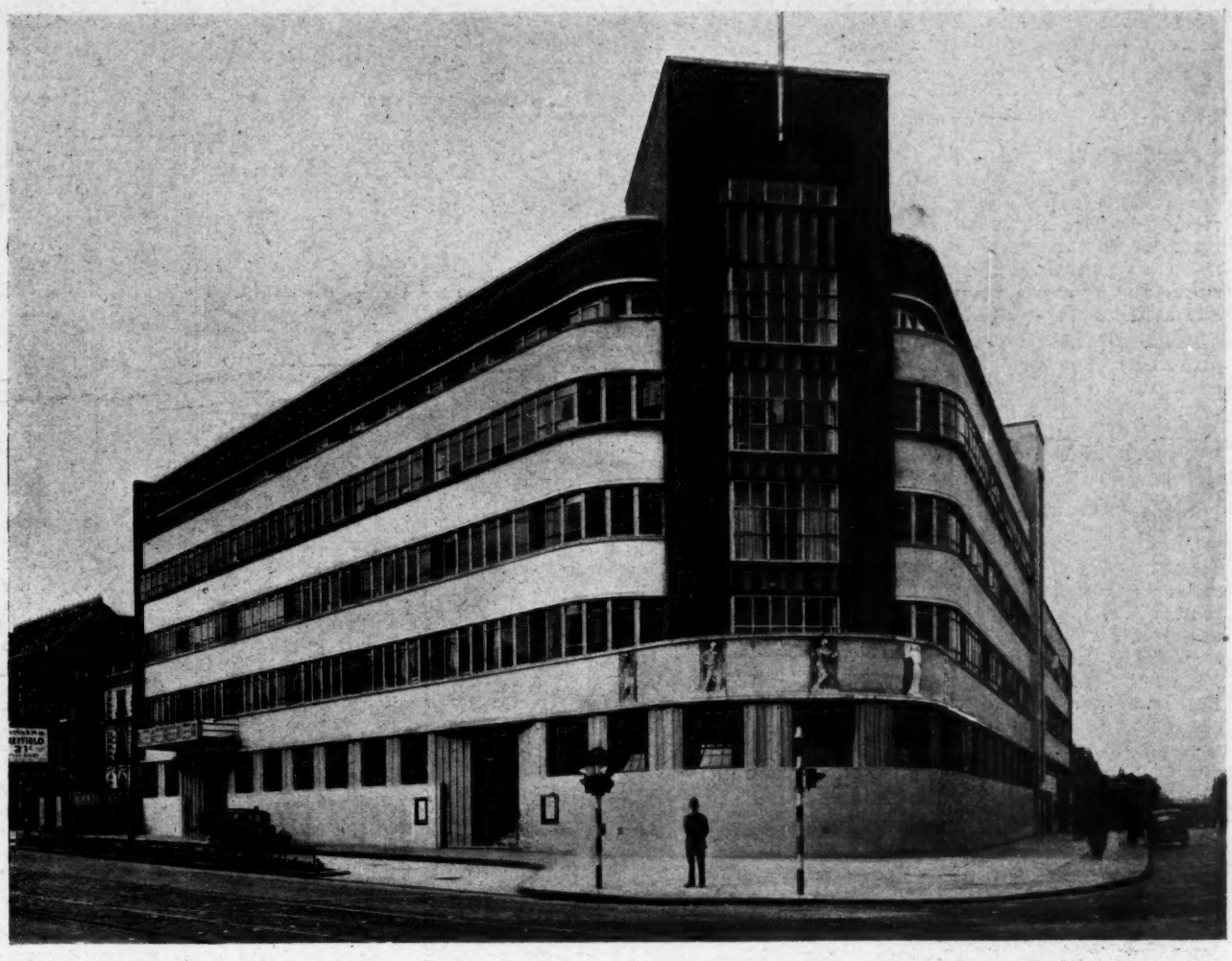


Left : THE MAIN STAIRCASE.

MANOR HOUSE FARM, HEADINGTON, OXFORDSHIRE.

MESSRS. COLLCUTT AND HAMP, F.R.I.B.A., ARCHITECTS.

MUNICIPAL OFFICES AND TOWN HALL FOR POPLAR, E.

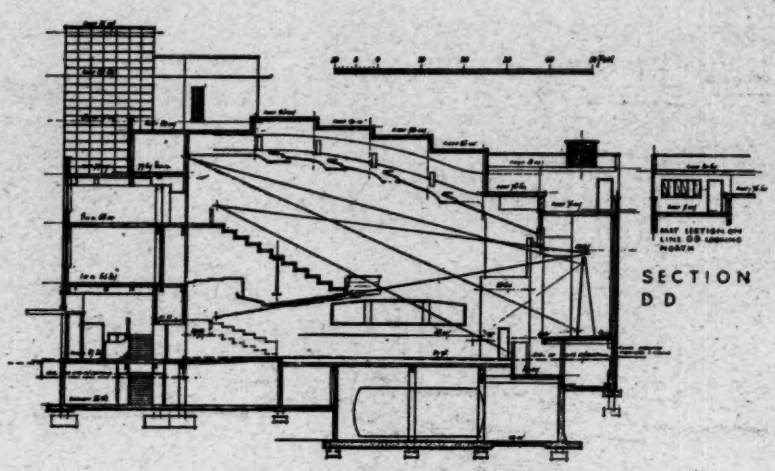


A GENERAL VIEW.

Right : DETAIL OF ENTRANCE TO CIVIC SUITE.

MESSRS. CULPIN & SON, F. & A.R.I.B.A., ARCHITECTS.

MUNICIPAL OFFICES AND TOWN HALL FOR POPLAR, E.



SECTION THROUGH ASSEMBLY HALL.

SITE.—The site of five-sixths of an acre is bounded by Bow-road, Fairfield-road, and Denbigh-road, a cul-de-sac, the fourth side abutting on a Victorian house and its garden. The site is practically level.

PROBLEM.—In common with many of the other Metropolitan Boroughs, the various departments were previously housed in scattered buildings. It was proposed to centralise these departments and the civic suite, and to provide on the same site a multi-purpose public hall.

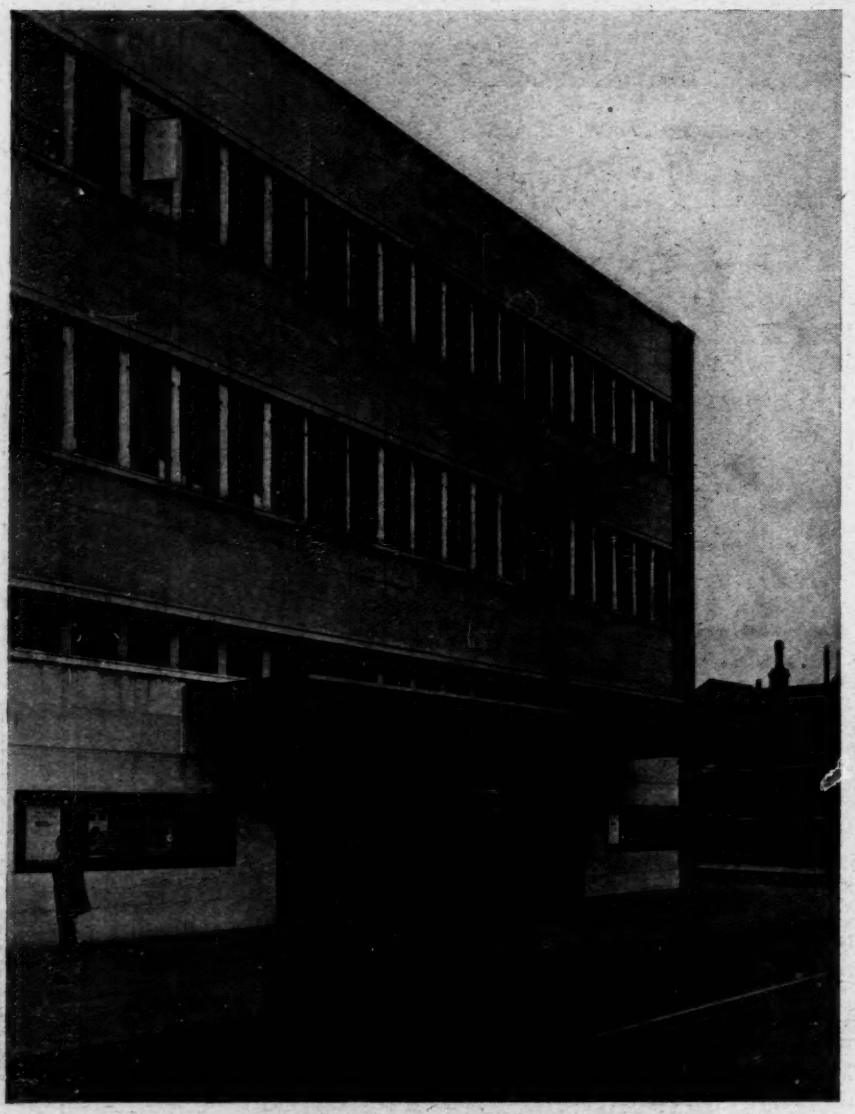
LAY-OUT.—On Bow-road an improvement line necessitated setting back 15 ft., and later the R.R.D. Act required the provision of an approach road to the main entrances which split up the wide, simple paved space on that side of the building. The accommodation as provided is on five floors, lower ground to fourth, and the ground floor has been kept about 5 ft. above pavement level in Bow-road, where the two main entrances are situated, one for the civic suite and one for the municipal offices. A second office entrance is placed in Fairfield-road, and the offices occupy both wings fronting on to these streets and the tower and curved portion at its base. In the courtyard, away from the noise of the streets, is the council chamber, at the high ground-floor level, and under it is a covered parking space approached from the rear road by a roadway passing under the assembly hall stage. The whole of the rear of the site is taken up by the assembly hall, which has its main entrance from Fairfield-road, and its emergency exits and stage door situated in the cul-de-sac, where is also placed the goods receiving office.

EXTERNAL TREATMENT.—Externally the building has a high plinth of pre-cast terrazzo slabs, selected as being a material easily cleaned. The piers between the ground-floor windows and the splayed reveals each side of the two main entrance doors are faced with Swedish green marble. The first, second and third floors are faced with Portland stone, while the piers between windows on these floors, the pier terminating the Bow-road elevation, the top floor (which is set back) and the tower are faced in 1½-in. grey-brown bricks, laid five courses to the foot, with the wide joints deeply weather-struck. The upper part of the assembly hall block is set back on the Fairfield-road front, and is, like the Denbigh-road front, faced with similar bricks to those described, but 2⅝-in. thick.

The stonework and terrazzo, etc., is fixed with the joints running through (not bonded), and the vertical joints are determined by the setting out of the plan in 3 ft. divisions throughout. Piers occupy one 3 ft. unit, and the windows six of these units. Wide, built-up mullions are employed throughout to give the greatest possible flexibility of planning. It is possible for partitions to be placed at any 3 ft. interval throughout the office block instead of at the normal 10 ft. or so applying in municipal buildings of the orthodox plan. A continuous window projecting about 12 in. from the general wall face lights the third floor, with free-standing circular columns behind.

The low tower (included on the clients' instructions) has large windows linked together by cast lead panels. Below the tower the curved parapet wall over the rates hall has, in relief, five sculptured figures executed by David Evans. These figures symbolise some of the trades engaged upon the building, and include a welder, a mason, a labourer, etc. Above the civic entrance is a cantilevered concrete balcony decorated in ceramic mosaics, also from the designs of David Evans. The front bears the arms of the borough and child figures symbolising Art, Music, Science, etc. The soffit (where the mosaics were laid on the shuttering before the concrete was poured) bears a map of the Thames where it passes through Poplar. The main civic and office entrance doors are of cast bronze of a simple coffered design, and slide into recesses. The courtyard elevations have a plinth of golden colour Hunziker bricks with cream sand-limes above.

CONSTRUCTION. — The building is steel-framed with hollow tile floors. Reinforced concrete was used for all

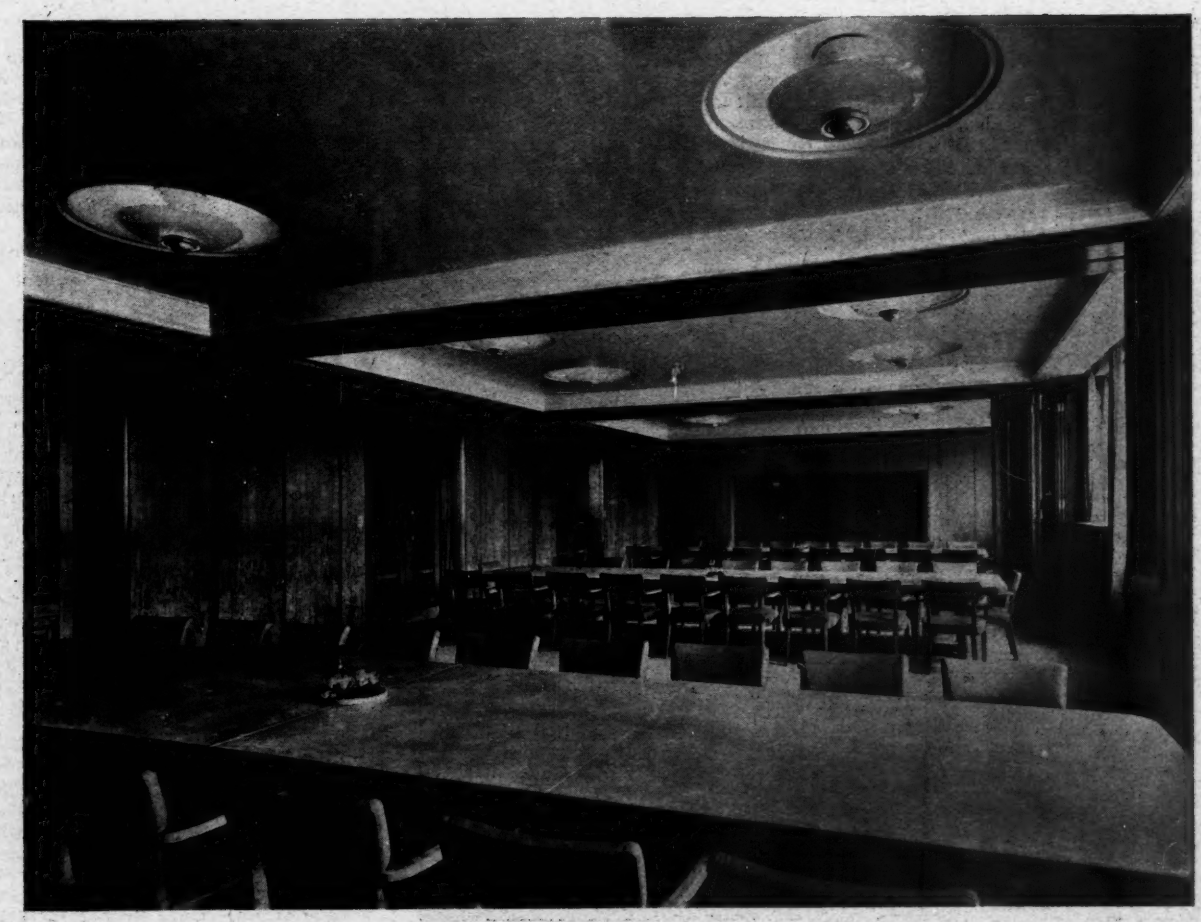


ENTRANCE TO ASSEMBLY HALL.

(*Continued on page* 976.)

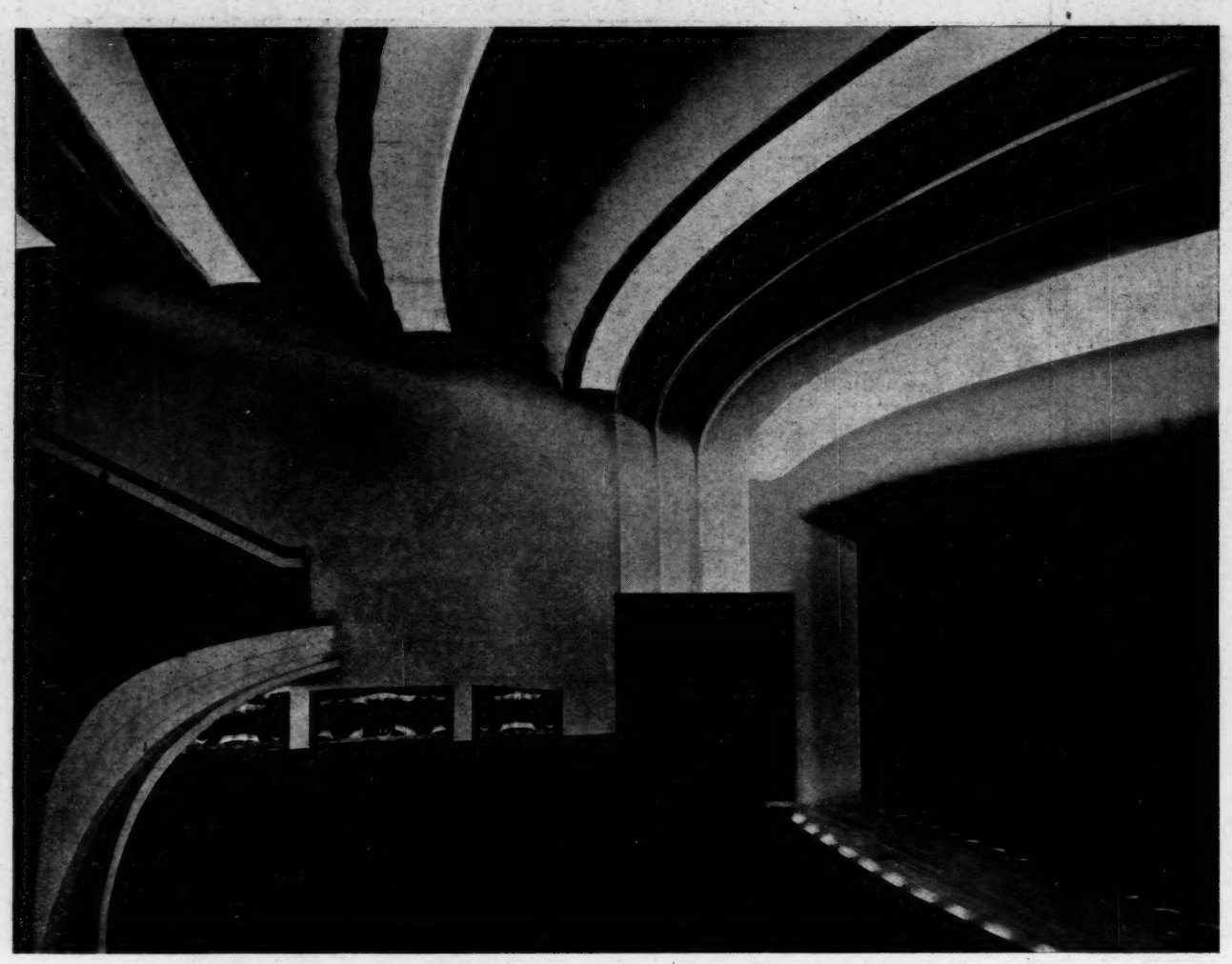
MESSRS. CULPIN & SON, F. & A.R.I.B.A., ARCHITECTS.

THE COUNCIL CHAMBER.



THE COMMITTEE ROOM SUITE.

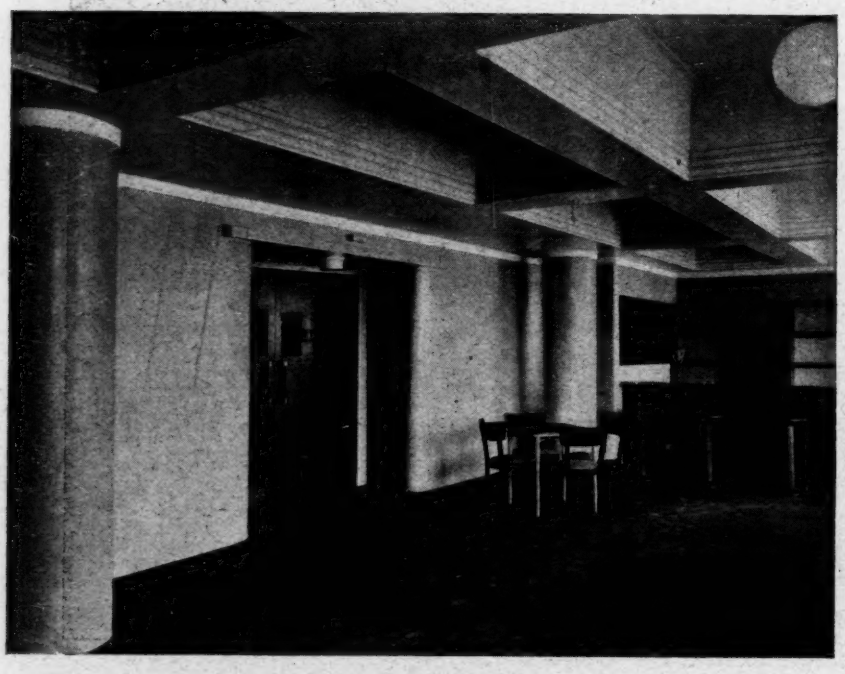
MUNICIPAL OFFICES AND TOWN HALL FOR POPLAR, E.



THE ASSEMBLY HALL, SHOWING STAGE.

staircases and balustrades, and for external walls where they were stone-faced; 3½-in. thick Portland stone slabs with ½-in. waterproofed backing were cramped with metal anchors to dovetailed slots cast in the 5-in. thick concrete wall. As permanent shuttering these walls were backed with 2-in. "Thermacoust" insulating material, and plastered. Concrete inner sills project to the line of inner face of stanchions, providing a recess for radiators. Roofs are asphalted and covered with cellular concrete and white cement rendering divided into squares.

PLANNING.—Immediately behind the civic entrance a combined entrance hall and ante room gives access to a small self-contained department intended for the Registrar, to the lift and stairs to committee rooms, to the members' room, lady members' room, and council chamber. The ante room is raised three steps above the hall, with a built-in seat acting as the division.

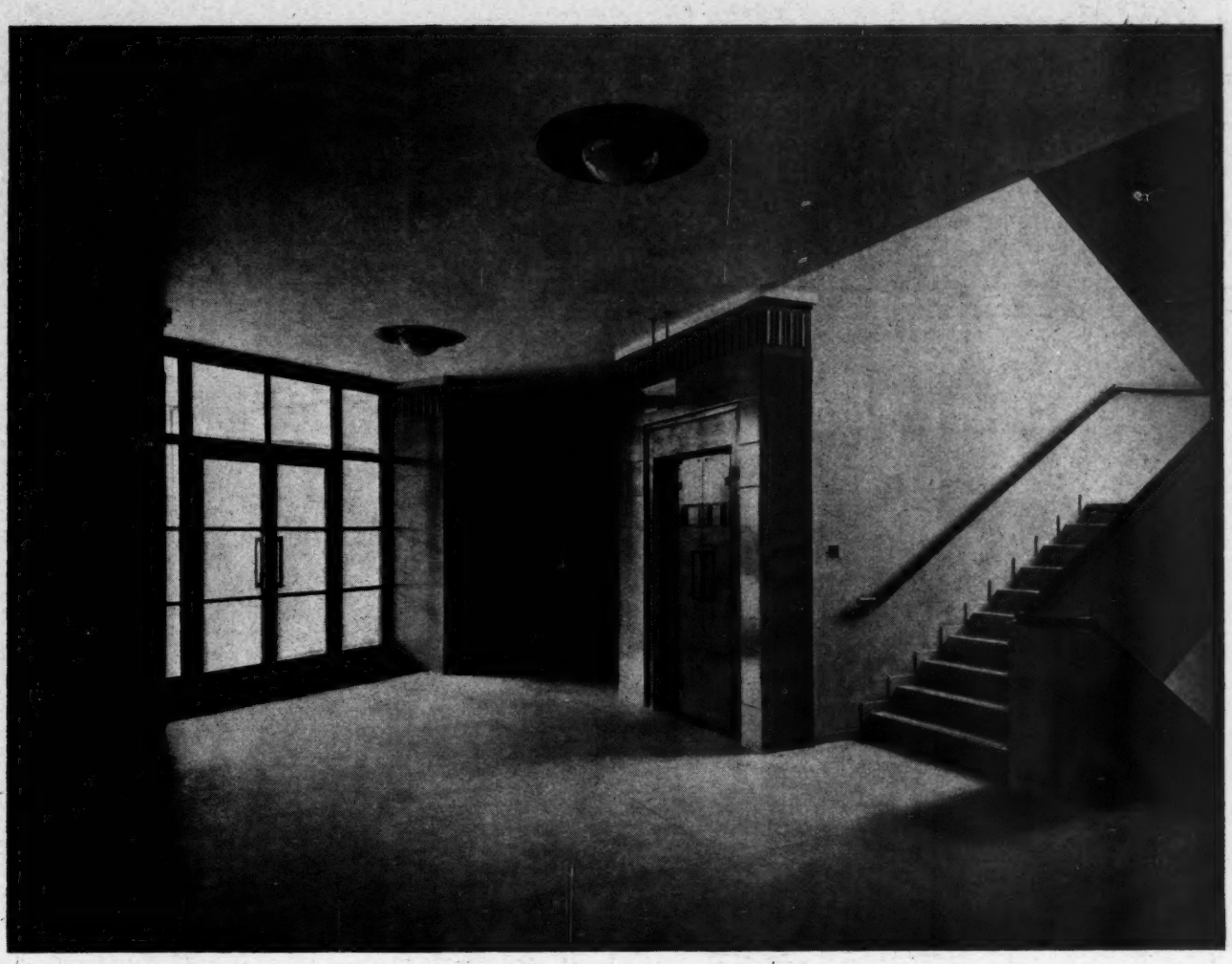


THE UPPER REFRESHMENT HALL.

The council chamber floor is flat, and desks are moveable to permit of re-arrangement to suit changing requirements of the borough. A public gallery, seating 98, is provided opposite the mayor's dais. The committee rooms can, for receptions, etc., be thrown into one. The sliding-folding doors shut away into cupboards. The mayor's parlour is planned with doors opening on to roof garden over male members' room. The town clerk's room is panelled in oak to a semi-traditional design. The other principal officers' rooms have an economical type of panelling formed by pinning on to battens five-ply boards with slightly rebated joints, shallow fillets covering these joints. Generally birch has been used for the facing of the ply, solid members being in walnut, and doors in Masa-birch.

ASSEMBLY HALL SUITE.—This suite comprises entrance foyer, cloakrooms, and lavatories, assembly hall with gallery, two refreshment rooms, stage, orchestra pit, dressing-rooms and cinematograph rooms. The assembly hall is designed primarily as a theatre and not a dance hall. The main floor is a locking sprung dance floor with maple flooring. (A removeable drugget is provided.)

MESSRS. CULPIN & SON, F. & A.R.I.B.A., ARCHITECTS.



ENTRANCE HALL, MUNICIPAL OFFICES.

Between the assembly hall and refreshment room, which is at a high level, is a decorated screen carried out in sand-blasted and etched glass, illuminated through its edges. It depicts Father Thames and the emblems of the three parishes in the borough. This was designed by W. D. Suddaby and C. E. Fryer. Lighting is concealed in slots in the ceiling and is all controlled by dimmers. In addition, rows of low-intensity cylindrical lights follow the curve of the balcony.

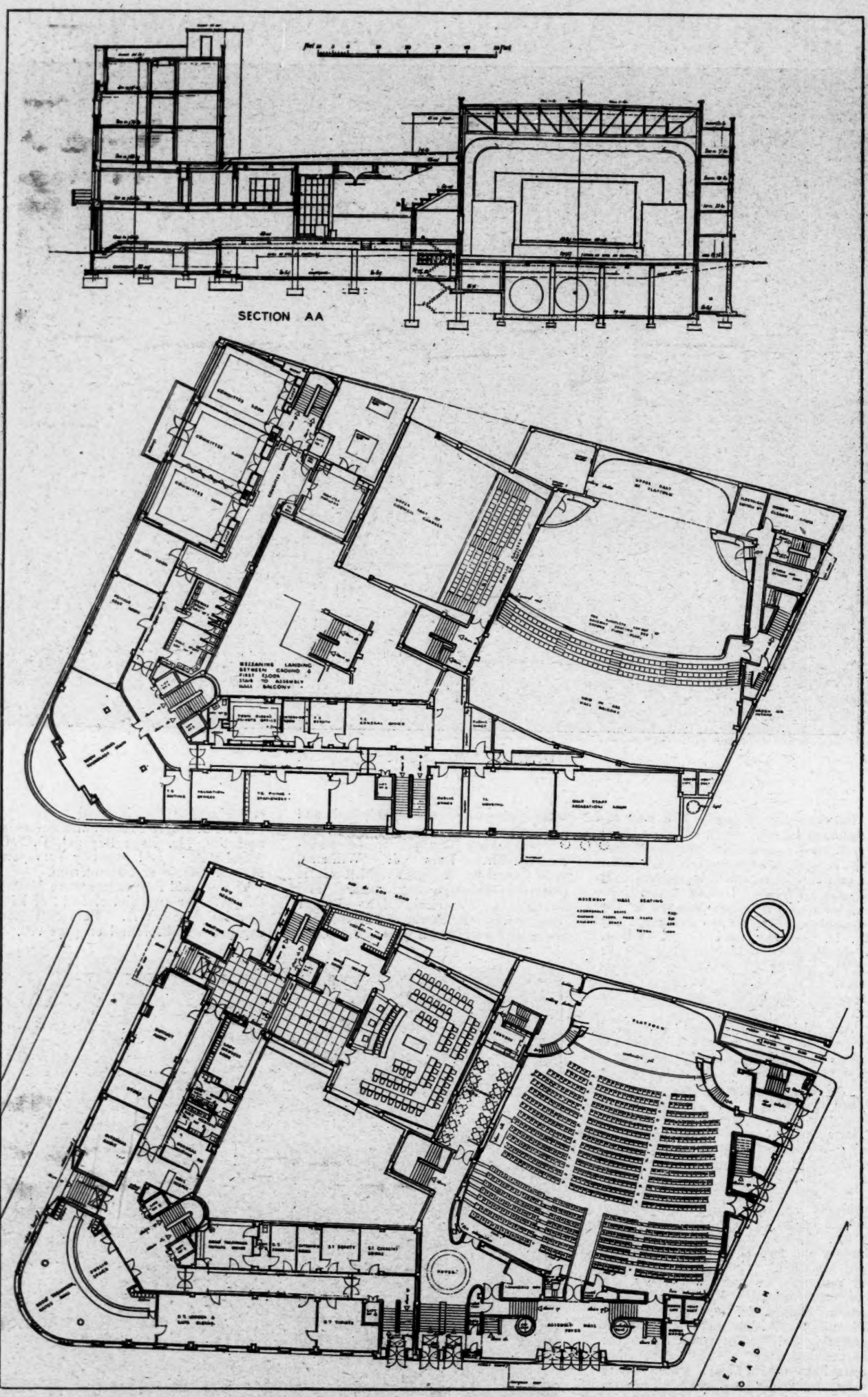
Around the proscenium arch is a feature in plaster behind which is concealed lighting. A cyclorama occupies the rear wall, and is lighted by a special cyclorama batten. A fairly large orchestra pit is provided, and over this is a removeable apron stage. There are two sets of footlights and wing floods, top battens and front-of-house spot lights, from a special room, are included.

ENGINEERING SERVICES.—The low-pressure hot-water heating system is heated by an electrical thermal storage plant. Two high-tension electrode boilers and two large storage cylinders are installed. Heating is generally by radiators, but principal rooms have convector units. Flush wall panels are introduced in certain staircases. Plenum ventilation is provided to the assembly hall block, council chamber, mayor's parlour, members' room and committee rooms. Hot water is provided from localised electric heaters. There are four passenger lifts, with "dual control" (one being a high-speed lift direct to the electricity department on the top floor), a chair hoist connecting the assembly hall and its chair store, and a goods lift.

CONSULTANTS engaged were: structural, Mr. Rees J. Williams, A.M.Inst.C.E., P.A.S.I., M.R.San.I. (former Borough Engineer and Surveyor); electrical, Mr. Robert Illingworth, M.I.E.E., M.I.Mech.E., Borough Electrical Engineer and General Manager; heating and ventilation, Messrs. J. Roger Preston and Partners; acoustics, Mr. Hope Bagenal, D.C.M., A.R.I.B.A.; and quantity surveyors, Messrs. Dearle and Henderson.

The general contractors were Messrs. Gee, Walker and Slater, Ltd., of Fitzmaurice-place, W.1. Sub-contractors engaged will be found on page 999.

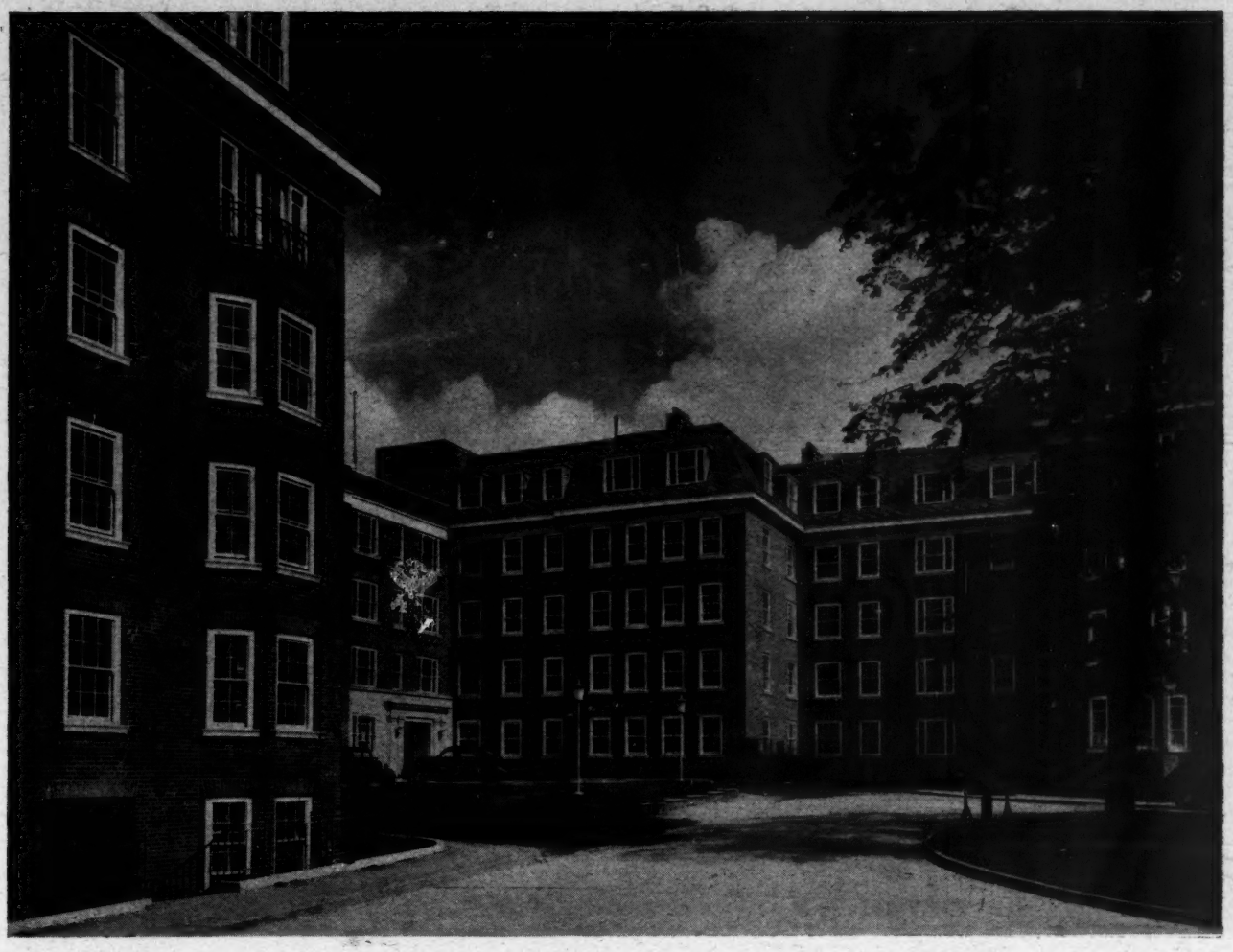
THE MAYOR'S PARLOUR.

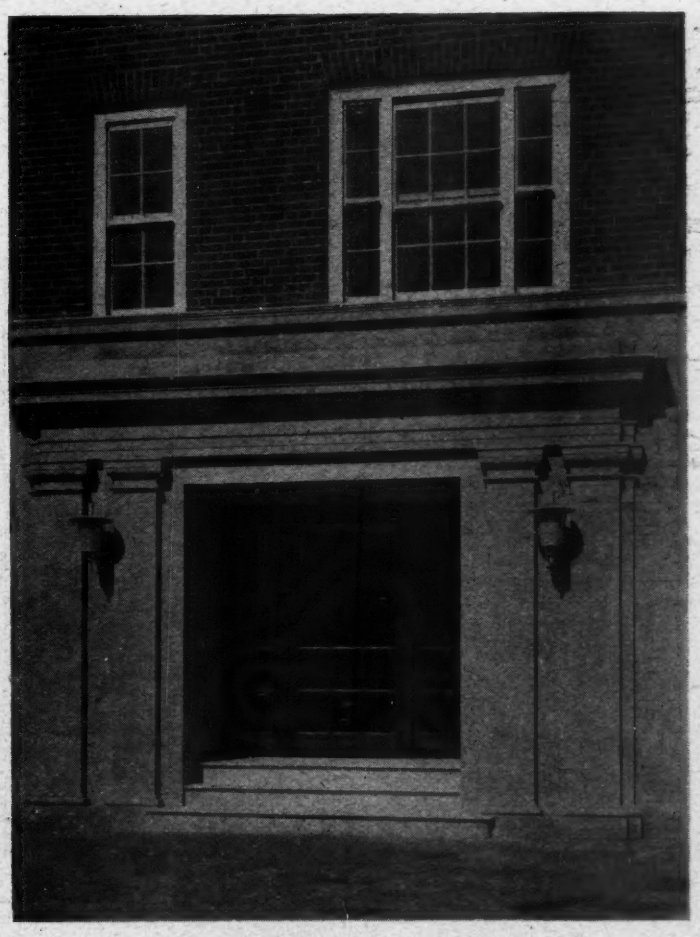


GROUND- AND FIRST-FLOOR PLANS, AND SECTION THROUGH CENTRE OF CIVIC ENTRANCE.

MUNICIPAL OFFICES AND TOWN HALL FOR POPLAR, E.

MESSRS. CULPIN AND SON, F. & A.R.I.B.A., ARCHITECTS.





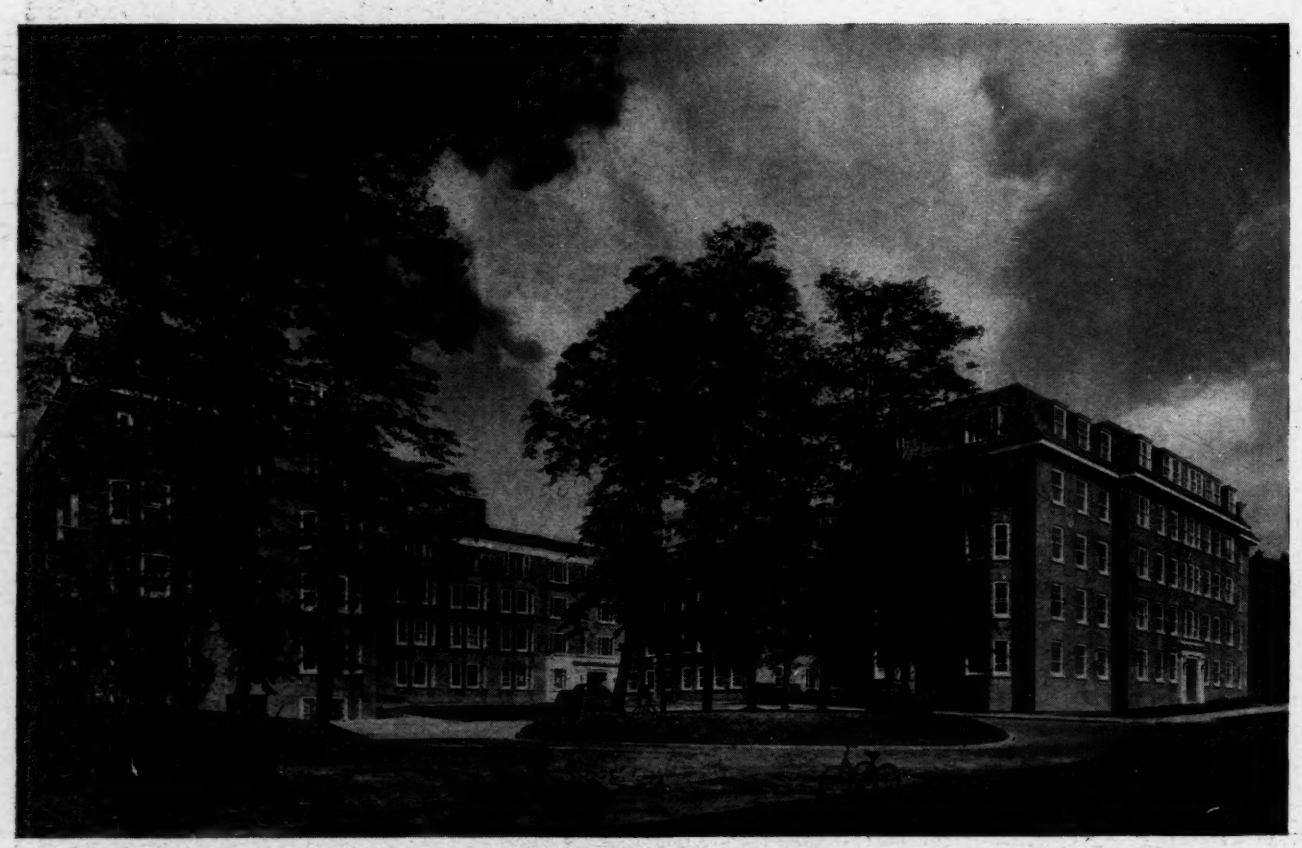
Above: VIEW INTO COURTYARD.
Right: DETAIL OF AN ENTRANCE.

"ST. STEPHEN'S CLOSE": FLATS AT ST. JOHN'S WOOD, N.W.

MESSRS. GORDON JEEVES, ARCHITECTS.

"ST. STEPHEN'S CLOSE," ST. JOHN'S WOOD.

THE WEST WING.



GENERAL VIEW FROM THE SOUTH-WEST.

MESSRS. GORDON JEEVES, ARCHITECTS.

A DINING ROOM.

Right: A LIVING-ROOM.

"ST. STEPHEN'S CLOSE": FLATS ST. JOHN'S WOOD, N.W.

MESSRS. GORDON JEEVES, ARCHITECTS.

THIS building on Avenue-road, St. John's Wood, N.W., contains 43 flats on five floors, the accommodation ranging from two-bedroom flats to luxury flats containing seven bedrooms. A typical arrangement of flats is seen from the plan.

The orientation of the building was governed principally by the unique situation of the site, which overlooks Primrose Hill on the one side and the extensive private gardens of the estate on the other, and the design which has been adopted not only gives a dignified appearance to the building from all aspects, but also gives the majority of the flats what must surely be one of the finest outlooks in London.

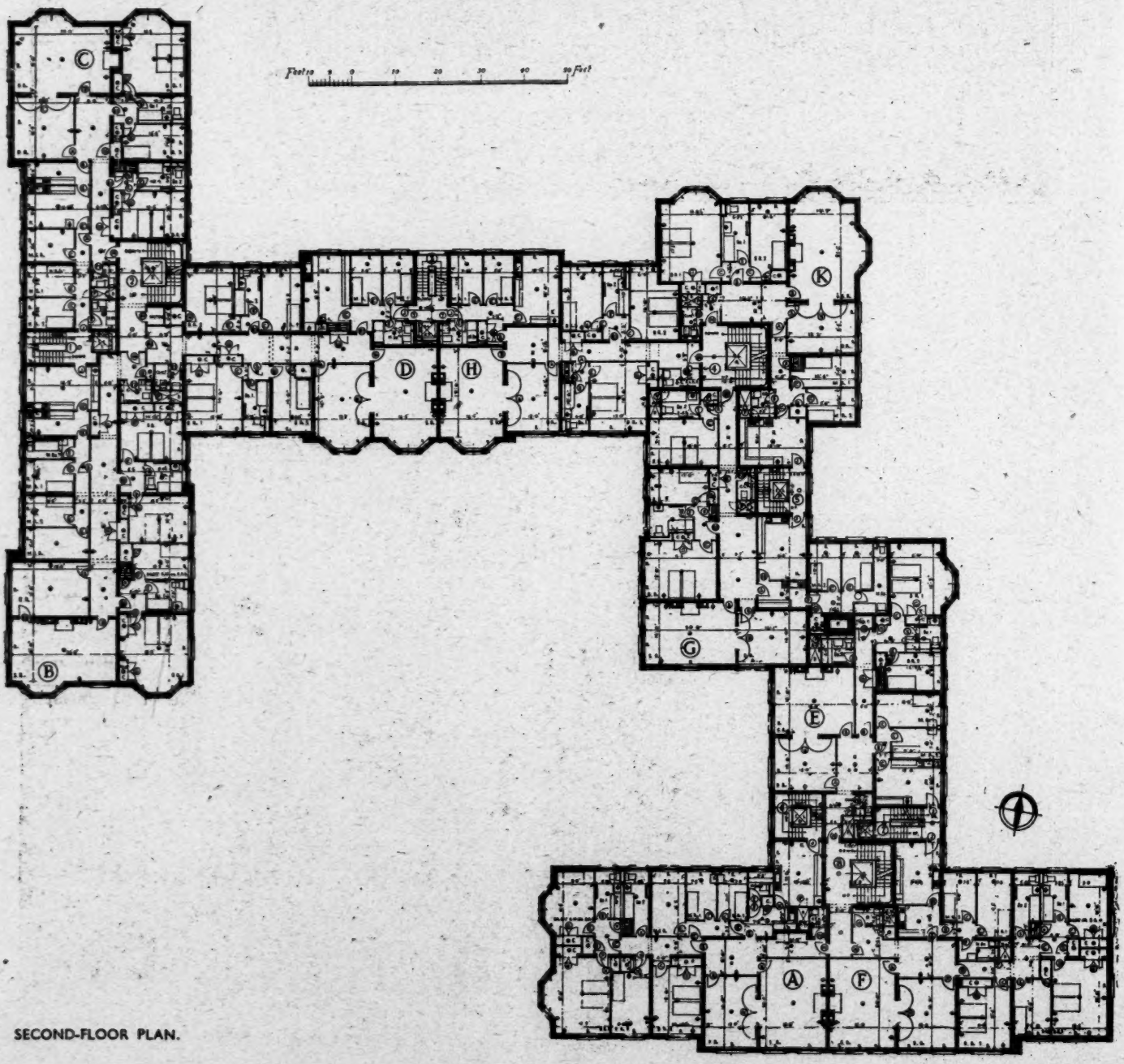
The exterior of the building is faced with "Lowndes" facing bricks, with which the sand-faced roofing tiles harmonise to give a very pleasing effect. The stone dressings are of cast Portland stone.

The entrance halls are paved with Trani-Mirabelle marble with Vert Issorie marble skirting and surrounds to the fireplaces.

The building is equipped with complete radio and television service, "Ozonair" equipment and extensive internal telephone installation.

The flats are finished with oak flooring and walnut doors, and extensive cupboards have been provided in addition to the built-in kitchen cabinets. There are no internal lighting areas.

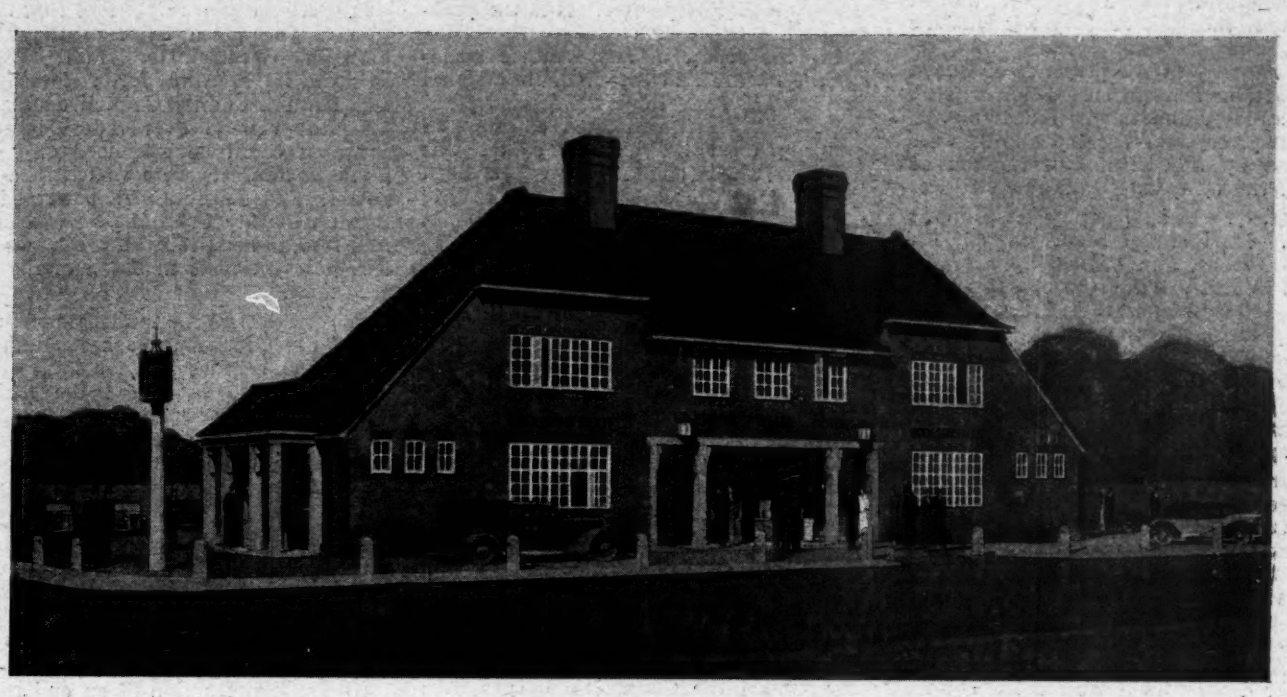
Messrs. E. D. Winn and Co., Ltd., of Buckingham Gate, were the contractors, and the sub-contractors engaged on the work were:—Asphalt, Ragusa Asphalt Co., Ltd.; stonework to entrance halls, Bath and Portland Stone Firms; pre-cast stone, Girling's Ferro-Concrete Co., Ltd.; joinery, Park Royal Joinery Works, Ltd.; flush doors, W. H. Newson, Ltd.; drainage and plumbing, Beer and Warren, Ltd.; heating and ventilation, Chase and Co., Ltd.; oak flooring, polishing and wall tiling, A. E. Whitton and Co., Ltd.; roof tiling, facing bricks, etc., and terra-cotta partitions, R. G. Ward; gas installation and refrigerators, Gas Light and Coke Co.; electrical installation, Smith and Hammond, Ltd.; internal telephones, General Time and Signals, Ltd.; relay wireless and "Ozonair," Radio Furniture and Fittings, Ltd.; bath panels, Marbolex Products, Ltd.; kitchen and pantry fitments, Modern Kitchen Equipments, Ltd.; marble floors to entrance halls, John Stubbs, Ltd.; glazing, A. Goldstein and Co.; mirrors, James Clark and Son; passenger and service lifts, Etchells, Congdon and Muir, Ltd.; ash hoist, Lift and Hoist Co., Ltd.; lift enclosures, Morris-Singer Co.; metal balconette, service stair, cat ladders, barrel rails, etc., C. A. and A. W. Haward; handrailing, Potter Rax Gate Co.; tarmacadam to forecourt, Tarpaving and Macadam, Ltd.; landscape gardening, A. Luff and Sons; sanitary equipment, W. N. Froy and Sons, Ltd.; stainless steel sinks, A. Johnson and Co., Ltd.; metal windows, Williams and Williams, Ltd.; bronze door furniture, etc., N. F. Ramsay; external lighting fittings, Troughton and Young, Ltd.; sand, ballast, etc., Hudson's, Ltd.; and plastering, W. Miller.



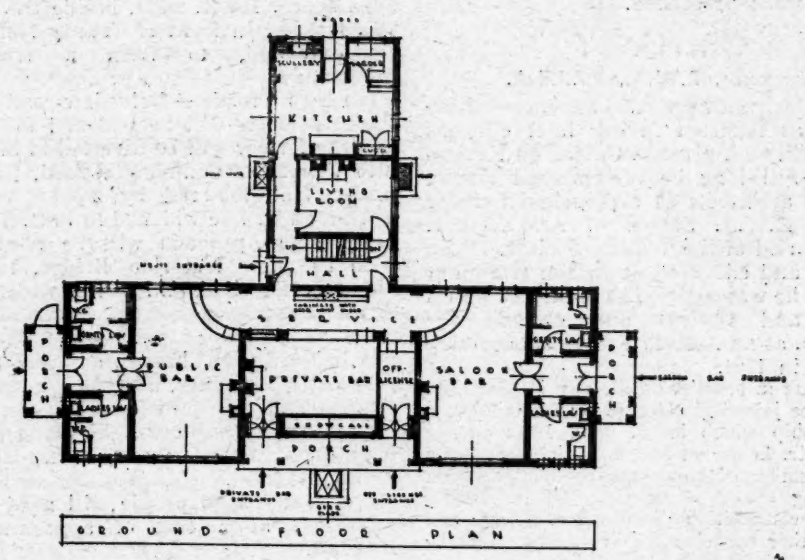
SECOND-FLOOR PLAN.

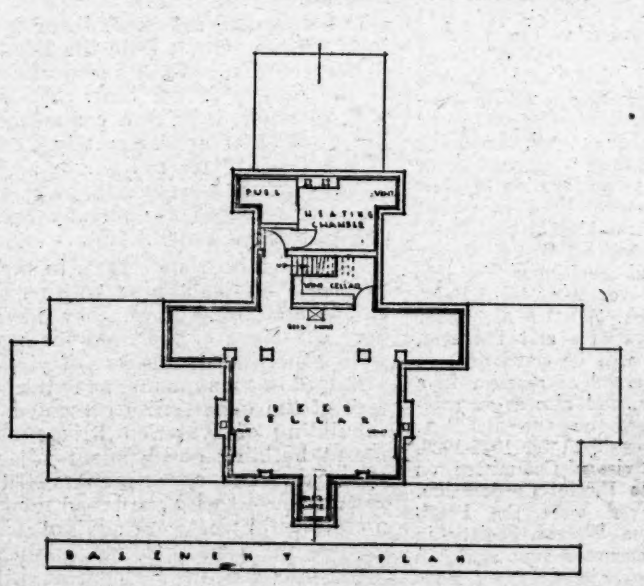
THE "EPSOM WELLS" HOTEL, EPSOM, SURREY.

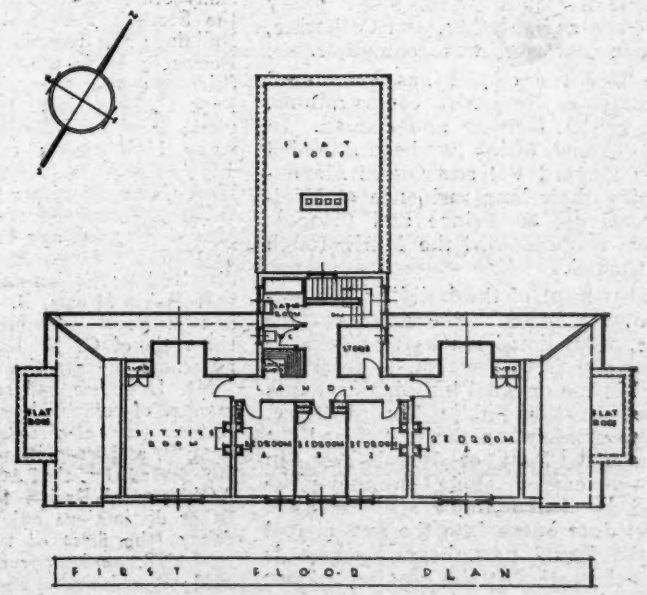
MR. JOSEPH HILL, F.R.I.B.A., ARCHITECT.



PERSPECTIVE OF ENTRANCE FRONT







SCALE EIGHT FEET TO ONE INCH.

THIS house, for which a licence was recently applied for, is planned to give all the facilities of a modern refreshment house in a high-class residential area.

The ground floor consists of public, private and saloon bar accommodation, whilst in addition there is an off-sales department and large showcase. There is lavatory accommodation for both sexes at each end of the house.

At the rear of the premises there is a private entrance, with living-room, kitchen, scullery, etc. The first floor is devoted to domestic accommodation for the licensee.

The elevational treatment will be carried out in multi-coloured brickwork with sand-faced tiled roof.

MARLBOROUGH HOUSE CHAPEL RESTORATION

Marlborough House Chapel, named throughout the 17th century the Queen's Chapel, St. James's Palace, was reopened recently in the presence of Queen Mary. It had been closed for repairs since January, and the new decorations, the altar-piece, and the altar-cloth were dedicated by the Bishop of London as Dean of the Chapels Royal.

The Queen's Chapel stands on the east side of Marlborough-road, facing St. James's Palace, and backed by the gardens of Marlborough House. It seems now to belong rather to the house than to the palace; but the present roadway, little more than a century old, passes over the site of a whole wing of the Palace, destroyed by fire in 1809, which gave direct access to the chapel from the Royal apartments.

As part of a royal palace the fabric of the Queen's Chapel is under the care of H.M. Office of Works. Now that the nine months' work of renovation is completed, the chapel is revealed as one of the most beautiful renaissance buildings of the early 17th century. It was designed in 1623 by Inigo Jones, Surveyor to the King's Works, yet so successfully had later decorators disguised the chapel that most of those who have written about it ascribe it to the latter part of the 17th century, assuming that it was built on the site of a chapel destroyed in the time of the Commonwealth. In 1623 negotiations were in progress for the marriage of Prince Charles to the Infanta Maria of Spain. James I agreed to build two chapels "with great costliness" for the princess's use. Before the negotiations were broken off the Spanish Ambassador had laid the first stone of this chapel, and the building was already advanced. It was completed in 1627 for the new Queen, Henrietta Maria.

Under the Commonwealth, the chapel was stripped of all its furnishings; but on the marriage of Charles II it was refitted, and a Friary of Capuchins was established by the Queen, Catherine of Braganza, in buildings adjoining the chapel on the north and east. James II's son, the Old Pretender, born in St. James's Palace in 1688, was baptised in the Queen's Chapel three months before his parents left the kingdom for ever. The Nuncio, Count Adda, stood proxy for the Pope as godfather, and Catherine, the Queen Dowager, was godmother.

Since 1689 the chapel has been used by successive Protestant congregations, French, Dutch, German and Danish. In 1901, the chapel, which had been attended by King Edward VII and Queen Alexandra during their long residence at Marlborough House as Prince and Princess of Wales, was renamed the Marlborough House Chapel.

The west front of the building has survived almost intact. The great cornice of stone, with lions' masks to discharge the rainwater from the roof, is described in detail in the original building accounts preserved in the Public Record Office. The three windows on the first floor light the Queen's Closet or Royal Pew, in which the carved stone chimney-piece designed by Inigo Jones still remains. The west door opens into the ante-chapel below the Royal pew, beyond which is the chapel itself. At the east end above the altar is a great triple window surmounted by the arms of Catherine of Braganza held by two flying angels.

The ceiling is the original one, entirely of pine-wood, richly carved; but until innumerable coats of paint had been removed it had the appearance of rather coarsely modelled plaster. It is the practice of the Office of Works to ascertain, during the repair of any historic building, the nature and colour of its original decorations. Here the accumulated paint was carefully stripped from ceiling and panelling until the earliest colour was exposed. These colours have now been repeated. At the east end of the ceiling four rows of the square coffers were found to have been gilded, and gold was also found on much of the carving above the east window and on the screen below it. All this has been carefully restored. The screen and the panelling date from the reign of Charles II. The altar-piece is a picture selected from the Royal collection to replace one painted in 1683 for Queen Catherine, which had been removed in 1689. It is of the Baroque Italian School, and may be an early work of Annibale Caracci. The altar-cloth has been specially designed by Mr. W. H. Randoll Blacking, F.R.I.B.A. The superb silver-gilt altar-candlesticks and alms-dish belong to the Chapel Royal.

Her Majesty Queen Mary, we learn, has taken the greatest interest in this work of redecoration and restoration, and often visited the Chapel to discuss with Sir Philip Sassoon, the First Commissioner of His Majesty's Works, the various problems which had to be settled, as the work proceeded.

OBITUARY

G. C. Lawrence, R.W.A., F.R.I.B.A.

Mr. George Churchus Lawrence—whose death, as reported in our later editions last week, took place in Clifton on November 8—will long be remembered among Wessex architects as a principal founder of the R.W.A. School of Architecture, Bristol, and of the Wessex Society. Born in 1872 and educated at Bristol Grammar School, he was articled to Henry Crisp (of Crisp and Oatley) and entered the R.I.B.A. as an Associate in 1896, becoming Fellow in 1924.

Starting in practice on his own in 1896, Mr. Lawrence joined Sir George Oatley in 1901, a partnership which lasted until 1936, and in which Mr. Lawrence shared in the design of a large number of important Bristol buildings, including the new Baptist College, Bristol (won in competition); head office, Bristol, and many other branches for Westminster Bank; the Scottish Provident Building; the Sun Building; the reconstruction of the Victoria Rooms in 1924; the First Church of Christ Scientist; the Central Y.M.C.A.; Knowle Park Congregational Church; the Eye Hospital; Southmead Hospital Development; and many buildings in other towns, including Fear's Institute, Keynsham; extensions at Ham Green Hospital; reconstruction of New College, Hampstead; nurses' home at Dorset Mental Hospital, and Pitman's Factory, Bath. In 1936, Mr. Lawrence and Sir George Oatley dissolved association and the former took into partnership Messrs. B. Ivor Day, A.R.I.B.A., and T. H. B. Burrough, A.R.I.B.A., under the style of G. C. Lawrence and Partners, by whom the practice will be continued.

Mr. Lawrence had served as assessor in a number of competitions, and also as an arbitrator. He also served on the R.I.B.A. Council, and was vice-president for 1928-1929. He served on the Advisory Committee on Architectural Design to Bristol Corporation. Other distinctions enjoyed were the Presidency (the first) of the Wessex Society in 1924-1928, an honour accorded him again in 1933; Presidency of the Bristol Society 1919-1923, and again in 1923-34; and chairmanship of the Bristol Joint Federation of Architects and Builders.

THE "SOUTH BANK" IMPROVEMENT SCHEME

It has long been recognised that the section of the south bank of the Thames between Westminster and Waterloo Bridges is overdue for redevelopment. The London County Council decided that adequate control over redevelopment of the area could be exercised only if the freehold interests were vested in a single owner, and it obtained powers in the London County Council (General Powers) Act, 1935, to acquire itself the freehold and leasehold interests in much of the necessary land.

The Highways Committee now recommend the Council to seek Parliamentary powers to acquire further land compulsorily, and to carry out the necessary works for a major scheme of improvement of this section of the south bank of the River Thames.

[This recommendation was duly approved by the Council on Tuesday.]

The scheme of redevelopment, which has been approved by the Minister of Transport, has been designed so that it will not preclude the construction of a Charing Cross Bridge in the future. The chief features of the scheme are:—

(i) The construction of an embankment wall, in continuation of that in front of the County Hall, to a point some 50 yds. below Waterloo Bridge, and the provision of an open space, 100 ft. wide, beside the river. The footway in front of County Hall will be extended, to form a riverside promenade.

(ii) Two roads — Belvedere-road and Jenkins-street—will be widened to 50 ft., and the former will be diverted to bring it into line with Commercial-road, passing under Waterloo-road by a new bridge. York-road will be widened to 70 ft. Waterloo Bridge Approach will be re-aligned with the new Waterloo Bridge, to provide a better vista, and will be widened to 90 ft.

(iii) A new road will be constructed, parallel with the Thames, adjacent to the proposed open space, and other new roads will connect this with Belvedere-road.

(iv) A roundabout will be made at the junction of Waterloo-road, York-road and Stamford-street.

(v) Nearly 2,000 people will need to be rehoused, at a cost of approximately £300,000.

The estimated net expenditure involved is £1,629,000. Grant from the Road Fund in respect of certain of the works will be at the rate of 60 per cent. The scheme will, however, involve a commitment for the Council of approximately £1,250,000. This will not represent a wholly additional liability on the county rate, as part of the property required has already been purchased by the Council.

The Committee state that, in preparing proposals for replanning an area of such extent and importance, they have been very conscious of the need for obtaining well-proportioned blocks of buildings, arranged in such manner as to take advantage of the opportunity presented by the rebuilding of Waterloo Bridge and the recent building development adjacent to the area. The scheme submitted is in general accord with the broad lines of the architectural treatment advised, and they express the hope that, within the framework provided, redevelopment will take the form of well-designed buildings of a scale and character not out of keeping with the County Hall and its extension.

THE A.R.P. INSTITUTE

DESIGN AND CONSTRUCTION OF EXTERNAL STRONGHOLDS.

SECOND GENERAL MEETING.

THE second general meeting of the Air Raid Protection Institute took place on Tuesday, November 8, at the Royal Society of Arts, W.C.2, when Mr. C. F. de Steiger delivered a paper on "The Design and Construction of External Strongholds."

Mr. de Steiger began by saying that he proposed to confine his observations to "external" strongholds—*i.e.*, strongholds built independent of other structures and not taking any advantage of the possible protective value of buildings above or near by. H.E. bombs were of several types, the main distinction being beween armour piercing, semi-armour piercing, and general purpose bombs. In air attacks on a city the last-named type was the most likely to be employed, but such bombs might be fitted with either percussion or delay action fuses, the former exploding on impact, the latter only after partial or complete penetration, according to the fuse setting.

Penetration depended on the weight, velocity and shape of the bomb, on the properties of the material into which it penetrated, and on the angle of impact. Penetration could, in many cases, be prevented by shaping the stronghold in such a manner as to deflect the bomb.

"We now come to consider the question of materials best suited to resist the manifold effects of H.E. bombs. It has been proved by numerous tests carried out in the past that full protection can definitely be provided by various building materials. But concrete, mass or reinforced, has considerable advantages over other materials, both from a structural and economical point of view, and I propose to confine my observations to external strongholds constructed in this material.

"The use of mass concrete has been especially developed in certain Continental countries where the steel supply is limited. In this country, however, this difficulty does not exist, and as reinforced concrete offers definite advantages over mass concrete, it should be given preference. It is an established fact that round mild-steel bars of small diameter, arranged to form a mesh in at least three directions are the most effective method of reinforcement against penetration and explosion. The spacing of the bars in two directions should not exceed 8 in. Transversely, a wider mesh may be provided without loss of effectiveness. The total weight of steel in a well-designed stronghold need not exceed 1½ to 2 cwt. per yard cube of concrete.

Good Quality Concrete.

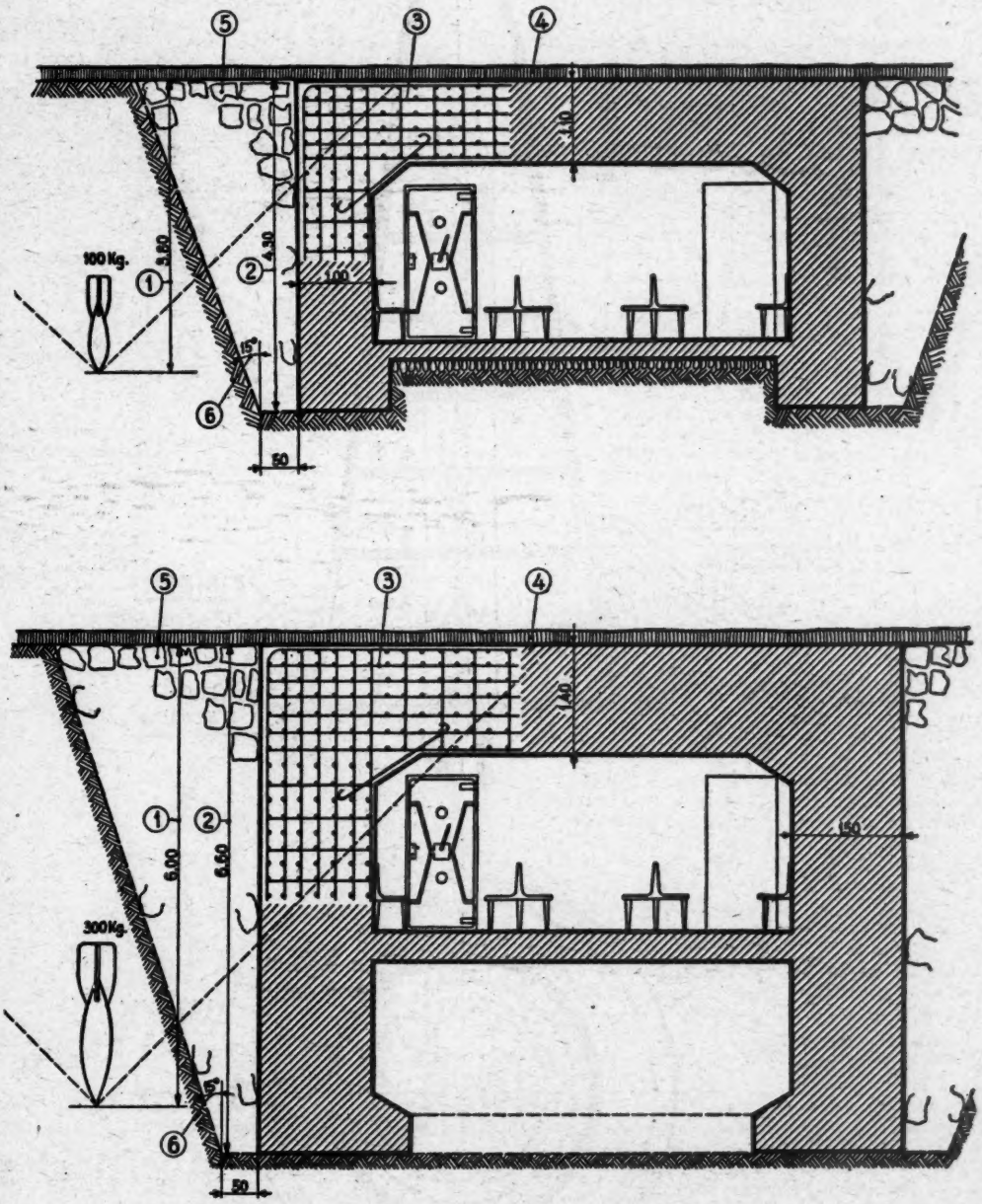
"The use of any type of reinforcement inclined to produce a layer, along which the concrete is liable to shear under the effects of an explosion, has to be carefully avoided" (continued the lecturer). "The concrete used in stronghold construction should be of very high quality, and a cube strength of 5,000 to 6,000 lb. per sq. in. in 28 days is desirable. At the same time, it is important to obtain the maximum possible density and tensile resistance. Such a concrete can best be produced by means of vibration, which also overcomes the difficulty of obtaining a homogeneous concrete, otherwise uncertain owing to the disposition of the reinforcement."

The speaker went on to say that he had referred only to solid mass or reinforced concrete construction. It appeared to offer certain advantages if the required total thickness of concrete was not provided in one solid layer, but in a system of alternate thinner concrete slabs and layers of loose material such as sand. This type of construction might be referred to as "sandwich construction." Tests on such a system had shown that the total thickness of concrete could thereby be reduced without decreasing the degree of protection. It appeared likely that the sandwich construction would, in addition, protect the innermost concrete structure more effectively than the solid type of construction from the vibrations set up by impact and detonation. There was, however, one serious drawback to that arrangement, in that a bomb might penetrate to an intermediate layer and explode there The rigid concrete layers above had a serious confining effect on the explosion, and greater damage to the stronghold structure would result. It would appear of the utmost importance to investigate that type of sandwich construction in all its aspects, and to carry out a series of tests to obtain definite information as to its merits.

The concussion inside a stronghold structure was due to the vibrations set up by the impact and the explosion of a bomb. Elastic structures, both in the material and the method of design used, seemed to be preferable to rigid structures. The outer and the inner shape of the stronghold, the weight or inertia of the structure, and the type of "bedding" might also prove to have considerable influence on the magnitude of the concussion inside the stronghold.

"The type of stronghold shown in the Swiss Government's A.R.P. handbook illustrates clearly the fundamental features to be incorporated in the design of a stronghold," the speaker continued. "The roof slab is dimensioned to resist penetration and explosion in the open, and the walls to resist the effects of a confined explosion in the adjacent earth. Coarse rubble filling is provided around the periphery to allow the explosion gases an easy escape, thus relieving the pressure on the stronghold walls. The rubble also forms a cushion for absorbing the vibrations set up by the explosion. The foundations are taken down to a depth greater than the depth of penetration of the bomb for which the stronghold is designed. The floor slab is therefore screened from any effect of an explosion, and can be designed for normal structural requirements.

"Although such a design affords complete protection for the occupants, it will be evident that the cost per head is rather high. When expressed in terms of the possible number of occupants, the quantities of highly reinforced concrete in the heavy roof slab and outer walls, especially when the latter are designed for the deep penetration of heavy bombs, become so great that they will prove in most cases prohibitive. The aim of the designing engineer has been, therefore, to reduce the quantities involved, without any corresponding loss in protection. This was achieved, firstly, in the development of the multiple-storey stronghold, in which one heavy roof affords protection to a number of storeys, and, secondly, in the shaping of the stronghold body so as to minimise the effects of H.E. bombs on the structure. The application of



(1) DEPTH OF PENETRATION.
(2) DEPTH OF FOUNDATION.
(3) SPECIAL HIGH-GRADE R.C.
(4) COVER.
(5) COARSE RUBBLE FILLING.
(6) ANGLE OF FILL.

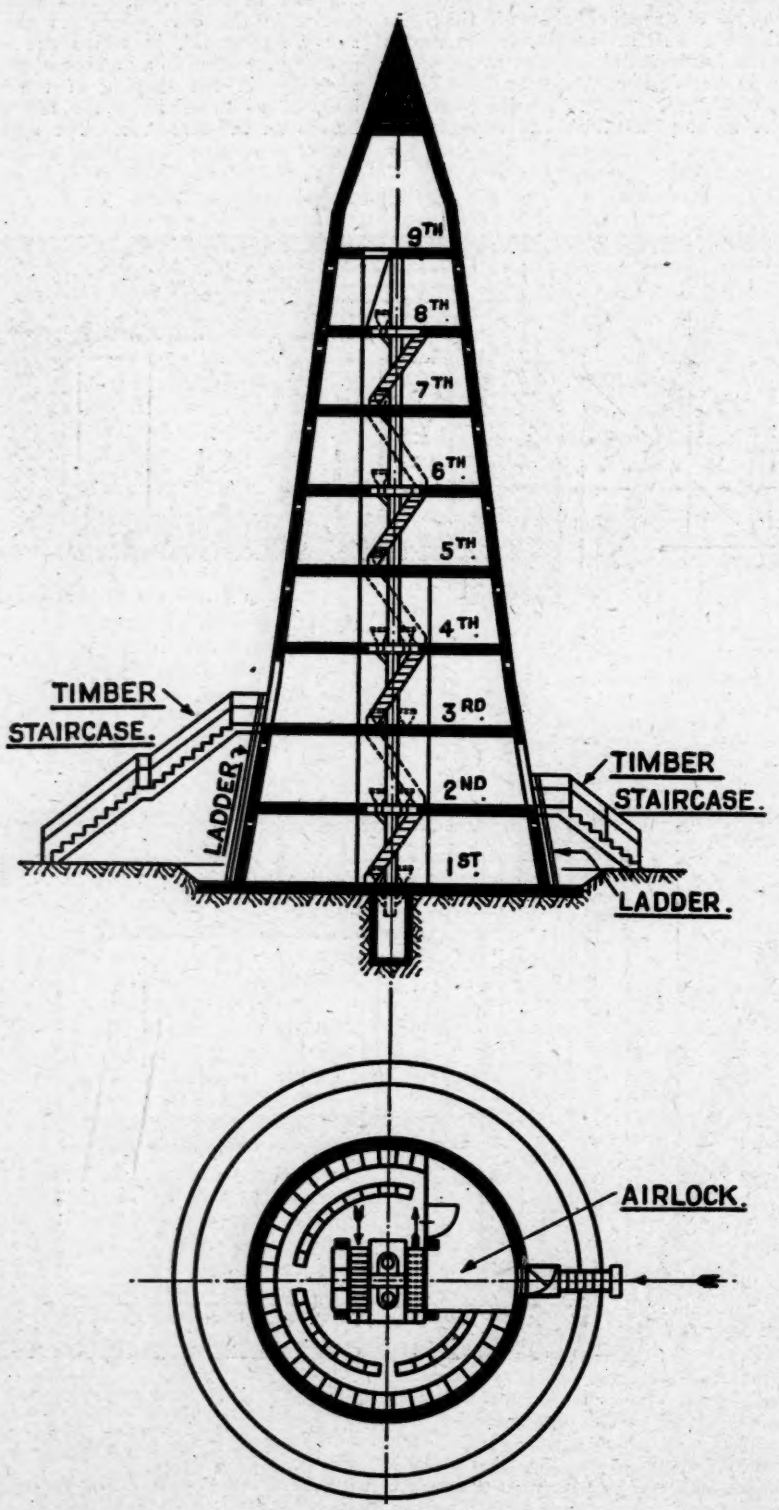
RECTANGULAR STRONGHOLD

these principles can best be illustrated by reference to some typical strongholds, both above and below ground, which have been perfected on the Continent."

" Above Ground " Stronghold.

" The most interesting type of ' above ground ' stronghold is the ' Winkel Tower,' so named after its designer, which has been developed in Germany. The conical shape, it is claimed, will deflect bombs and prevent penetration. For that reason the outer walls have only to be dimensioned to resist the effects of a detonation, but have to be of constant thickness for the full height of the tower. It is also claimed that even heavy bombs exploding near or under the foot of the tower cannot imperil the stability of the structure. The interior is subdivided into nine storeys, connected by a central staircase. All necessary stronghold plant is housed on the top floor. Two entrances are provided on opposite sides of the tower at one of the upper floors, so that the doors are out of reach of a bomb exploding at or below ground level. No effort is made to protect the light access staircases, as ladders can be utilised should the staircases be destroyed. The small plan area of such a multiple storey stronghold makes it a very difficult target for the attacking airplane, a consideration which is common to all strongholds designed to that principle. The ' Winkel Tower ' has been standardised, with the approval of the German authorities, in four sizes, with a capacity of 400 people for the largest, to 168 people for the smallest. The cost per head is said to amount to approximately £20.

" The type of stronghold embodying the same principles, but designed to be constructed below ground level, is the ' Schindler Stronghold,' so called after its inventor and patentee, a Swiss architect. This stronghold has a main cylindrical body, terminating at both ends in spherical domes. The top dome and the upper part of the cylinder are dimensioned to give complete protection against the effects of a direct hit and a confined explosion. A detonating slab can also be provided at ground level to increase the degree of protection against penetration. The lower part of the stronghold, which is beyond the depth of penetration of bombs, need be dimensioned only for normal earth or water pressure, and can therefore be kept at an economical section. The same consideration applies also to the design of the lower dome. These features show clearly that the total reinforced concrete quantities needed to protect a given number of people can still be reduced in comparison to those of the previously discussed ' Winkel Tower,' in which the wall thickness could not be decreased in a similar way without loss of protection. In the case of the ' Schindler Stronghold,' advantage is taken of the protective value of the surrounding earth.



WINKEL TOWER

" Entrance to this stronghold is effected by tunnels, either from the open or from neighbouring buildings. The entrance floor contains a gas-lock, decontamination facilities, and all plant necessary to make the stronghold independent of any outside supply. A circular staircase, serving the lower three floors, is provided down the centre-line of the cylinder. On each of these floors, on either side of the central staircase, there are three rows of seats, with the necessary passages between. The space required by this arrangement determines the internal diameter of the cylinder. Two hundred people can be accommodated in this manner in a standard four-storey stronghold. The three rows of seats can, in turn, be replaced by beds arranged radially, leaving a passage around the staircase. The space under the top dome is utilised to house a steel freshwater tank, which serves as shuttering in the construction of the upper dome, thus obviating the use of costly spherical timbering. Similar use is made of the space above the lower dome to collect the waste water."

Describing the method of construction, the speaker said: " In the first instance, the ground is excavated to the depth of the intended earth cover over the completed stronghold. At this level the cutting edge and the cylindrical wall for the height of approximately one storey are concreted. The wall shuttering is suspended from a system of steel joists arranged over the excavation. As soon as this concrete has acquired the necessary strength, the shuttering is eased slightly, to allow this cylinder to sink into the ground under its own weight, assisted by excavation from inside the cylinder. This procedure can be regarded as a reversed method of ' sliding shuttering.' During the sinking process, the upper parts of the cylinder are concreted up to the springing of the upper dome. At this stage the lower dome is concreted on the ground, which has previously been excavated to the appropriate shape. The intermediate floor slabs, for which chases and splice bars have been left in the cylinder walls, are then inserted. The structure is now sufficiently stiff to allow the concreting of the top dome to proceed. Access and emergency exit tunnels are then joined to the main stronghold structure, which is covered finally with coarse rubble up to the original ground level. Such strongholds have also been constructed in water-bearing ground. The internal spiral staircase, which is self-supporting, is built of standardised precast steps, designed to produce a hollow newel used for ventilation purposes. The cost of constructing a standard ' Schindler Stronghold ' for 200 people is from £15 to £20 per head.

Special Purpose Strongholds.

" The same ideas of design and construction can also be applied to strongholds required for specialised purposes, such as hospitals, where the spiral staircase can be replaced by a lift, decontamination centres, telephone exchanges, etc. For some of these applications it may be desirable to give direct access to the stronghold at ground level. The roof in that case will project above ground level, and its shape would have to be adjusted, according to the principles already discussed, for stronghold structures above ground.

" Due to its curvature, the cylindrical shape of the ' Schindler Stronghold ' has great advantages over the rectangular type of stronghold for resisting effects of an explosion below ground. A still higher resistance can be

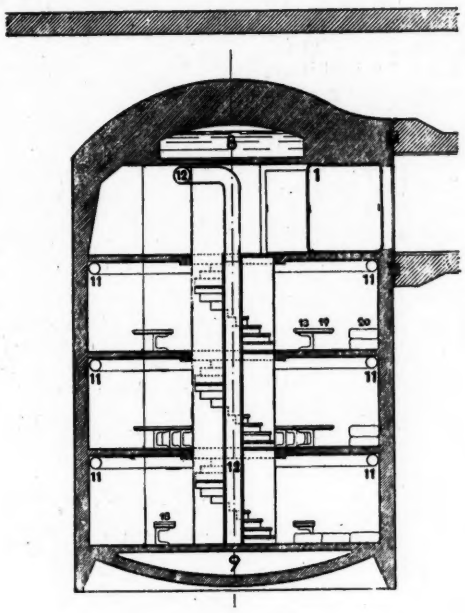
obtained, without any corresponding increase in quantities involved, by curvature in two directions, which leads us to a spherical shape having equal resistance all round. I have already explained that above ground a conical shape is indicated to ensure deflection of a bomb. This consideration has led Mr. Schindler to evolve a type of small stronghold, combining the conical shape above ground with a spherical shape below. The cone above ground contains the entrance and air-lock, and can also be used as a fully protected observation post. The sphere below ground encloses the actual shelter room, to which access is obtained by means of a ladder through a gas-proof manhole."

In conclusion, the speaker said he did not advocate strongholds for the general population; but considered them essential for certain specific purposes. Innumerable strongholds had already been completed on the Continent by industrial concerns to protect their highly skilled workmen, whose safety in times of war became a question of national importance. Strongholds had been built to serve as hospitals, telephone exchanges, radio transmitting stations, auxiliary power stations, and to protect valuables and important documents. Strongholds to give full protection from the effects of the heaviest known bomb had been constructed for certain government offices, so that in no circumstances was there a possibility of an enforced suspension of their work.

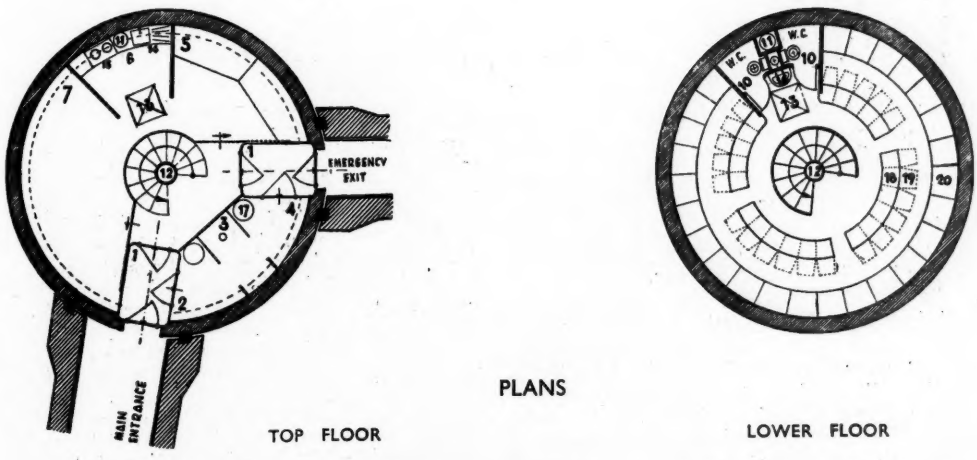
"I feel certain that A.R.P. in this country will follow the same lines. We have already taken precautions against poison gas. We are at this moment engaged in the construction of shelters and trenches to protect the public from blast, splinters and debris, and I am convinced that the necessity for strongholds for such objects as I have outlined will ultimately be recognised."

Non-destructive Testing: London Meeting.

The Joint Committee on Materials and Their Testing is organising a meeting which will be held under the auspices of the Institution of Electrical Engineers on November 25 next to discuss the methods of non-destructive testing. The subjects to be discussed include: Magnetic and Electrical Methods; X- and Gamma-Rays; Acoustical and General Methods. Authors representing Great Britain, the Continent of Europe and the United States will present papers. The meeting will be held at the Institution of Electrical Engineers under the Presidency of Dr. A. P. M. Fleming, President of that Institution, from 10 a.m. to 1 p.m., and 2 to 5 p.m. A general invitation to attend is extended to all those who are interested. Applications for advance copies of the papers should be addressed to the Secretary, the Institution of Electrical Engineers, Savoy-place, Victoria Embankment, London, W.C.2.



SECTION



PLANS

TOP FLOOR LOWER FLOOR

(1) Air lock.
(2) Undressing room.
(3) Shower.
(4) Dressing room.
(5) Hospital.
(6) Kitchen.
(7) Plant.
(8) Fresh water tank.
(9) Waste water sump.
(10) W.C.
(11) Fresh air.
(12) Waste air.
(13) Trap door.
(14) Sink.
(15) Cooker.
(16) Lav. basin.
(17) Hot-water boiler.
(18) Bench.
(19) Tip-up seat.
(20) Mattresses.

SCHINDLER STRONGHOLD

BOOK REVIEW

Principles of Modern Building. Vol. I. Walls, Partitions and Chimneys. R. Fitzmaurice, B.Sc., Assoc.M.Inst.C.E. (His Majesty's Stationery Office.) Price 10s. 6d. net; 11s. post free.

The provision of good houses is of interest to everyone, and the design of larger buildings, which form a heavy capital charge on every industry, is of no less importance. Not all buildings are good, and improvement can only come through knowledge. Such knowledge, derived and accumulated at the Building Research Station of the Department of Scientific and Industrial Research, is now being made available in book form under the title of "Principles of Modern Building." The first volume of the series, that on walls, partitions and chimneys, has just been published.

One of the principal functions of the Building Research Station is to answer the many thousands of inquiries received from all branches of the industry. The wide experience of practical building problems resulting from this is made full use of in the book, which has been compiled by the member of the staff responsible for dealing with these inquiries, Mr. R. Fitzmaurice. The author has himself had a long experience of building construction and of teaching the subject before joining the Building Research Station, a few years after its inception 17 years ago.

The preparation of the series has been undertaken at the joint request of the Royal Institute of British Architects and the Chartered Surveyors' Institution, reinforced by a similar suggestion made in the Interim Report of the Ministry of Health Committee on the Construction of Flats for the Working Classes. The scope, contents, method of presentation, and general form of the work have been planned with the guidance of an Advisory Committee, under the chairmanship of Sir Raymond Unwin, LL.D., D.Tech., D.Arch., F.R.I.B.A., appointed by the Building Research Board.

There is novelty in the manner of approach to the problems. The book is not a mere recapitulation of recommended method and practice, nor is it a textbook on how the ordinary methods of building are carried through. Still less has any attempt been made to teach the professional architect or builder what he already knows thoroughly.

The title—Principles of Modern Building—gives the key to its primary aim, which is to provide as clear a formulation as possible of the functions of a building and of the elements of structure of which it is composed, and in this way guide the practical man in adapting his design to changing requirements. So far as is known this has never before been attempted.

These are some of the questions the book answers. How can dampness in walls be obviated? Why does a chimney smoke, and how can it be prevented? When is a room "comfortable" as regards warmth, and how much insulation is necessary to provide against the penetration of sound? What factors lead to the formation of shrinkage cracks, and how can they be controlled? An outstanding feature of the book is the concise manner in which practical recommendations are given in connection with the various problems discussed.

While building practice was subject to but slow changes, basic changes had tended to be forgotten. The result is that in the more rapidly changing conditions of to-day innovations have sometimes been introduced which have been ill-advised.

Organised research and inquiry on any considerable scale is a comparatively new feature in the building industry, and it follows that in the 17 years in which it has been going on there has been an advance in knowledge far greater relatively than if the work had been but the continuation of long-standing activities, a fact which makes the production of this series of volumes even more of a necessity.

The first volume is attractively prepared. It contains about 400 pages, well printed on

good paper and is profusely illustrated with attractive photographs and with drawings and graphs, carefully prepared, all of which go to make it a valuable work. Some idea of its scope will be obtained from the chapter headings, which are: The functions of the wall; solid load-bearing walls; load-bearing cavity walls; non-load-bearing members; monolithic reinforced concrete; surface finishes for external walls; special structural features; damp walls; and mortars. A useful and not too cumbersome list of references is given, and appendices include the loading to be assumed for calculating the design of buildings laid down in the Model By-laws of the Ministry of Health, July, 1937, and a list of British Standard Specifications applicable to walling.

LAW REPORT

SEQUEL TO SHORT CIRCUIT IN ELECTRIC LIGHT CABLE.

COURT OF APPEAL.

Before LORDS JUSTICES SLESSER, MACKINNON and FINLAY.

Walton v. Newcastle and District Electric Lighting Co., Ltd.

In this case Miss Doris Walton, of Biddock-lane, Fatfield, Durham, appealed from a judgment of Mr. Justice Hilbery at the Newcastle Assizes awarding to her £2,000 damages against the Newcastle and District Electric Lighting Co., Ltd.

Mr. G. Harvey Robson, in support of the appeal, stated that Miss Walton, aged 24, was on the day in question standing on the doorstep of her mother's house in Scotswood-road, Newcastle, when an explosion occurred under the footpath near the house and she was so badly injured that her left leg had to be afterwards amputated. The cause of the explosion was a short circuit in an electric light cable under the pavement which ultimately caused an explosion of gas from a near-by pipe.

The defendant company admitted their liability to pay compensation to Miss Walton, and the ground of the present appeal was that the damages awarded to her by Mr. Justice Hilbery were in the circumstances inadequate and an entirely erroneous estimate of the damage to the lady.

Lord Justice Mackinnon: What do you say it ought to be?

Mr. Robson: A minimum of £3,000.

Without calling upon counsel for the company the Court dismissed the appeal.

In giving judgment, Lord Justice Slesser said that Court could not interfere with the estimate of damage by a Judge unless the Judge had proceeded on some wrong principle of law or had taken into consideration something he ought not to have considered, or refused to take into consideration something he ought to have considered. Unless that was so that Court could not interfere, as the matter of the damages was entirely one for the discretion of the Judge at the trial. In these circumstances the appeal failed and must be dismissed.

Lords Justices Mackinnon and Finlay concurred.

Diaries for 1939.

In the 1939 series of diaries published by Messrs. Charles Letts and Co., Diary House, Borough-road, S.E.1, the publishers announce that they have introduced an entirely new method of binding which ensures extra strength with a flatter opening and greater flexibility. There are diaries for golfers and motorists, schoolboys and schoolgirls, scouts and guides, foxhunters and fishermen, sportsmen and ramblers. Air Raid Precautions have not been forgotten, and a special section has been included in the Business Man's and Housewife's diaries, and in the Ladies' Year Book and Red Cross Diary, where there are given in addition First Aid Notes for gas casualties. The diaries make acceptable Christmas gifts and are easy to pack and cheap to send through the post. They are now on sale at all bookstalls, stationers, etc.

LONDON BUILDING BY-LAWS—XXXVIII

By ALFRED H. BARNES, F.R.I.B.A., M.I.Struct.E., and C. ROLAND WOODS, M.B.E., LL.B.

PART VIII.—MISCELLANEOUS (*continued*).

Chimneys to Open Gas Fires.

BY-LAW No. 132 sets forth the general requirements with regard to the construction of chimneys, and where such requirements are not qualified by such phrases as "Unless expressly provided in these by-laws," "This requirement shall not apply in the case of . . . a gas fire," or similar exemptions, they, of course, operate in respect of chimneys to gas fires as well as to coal fires. Those provisions relating only to chimneys to gas fires are set out in by-law No. 134; but in order to bring the whole subject into focus, this by-law must be examined in relationship with the basic requirements of by-law No. 132.

Paragraph (2) (a) of that by-law specifies the materials with which a flue may be surrounded and the minimum thickness to be employed "unless otherwise provided in these by-laws," that is, 4 inches of solid bricks or blocks, in situ concrete or (except in party walls) any of these in combination with metal. It is otherwise provided in by-law No. 134 (1) that any material may be employed provided it be incombustible. It need not be solid, subject to the district surveyor being satisfied as to stability. Furthermore, the prescribed thickness is reduced from 4 inches to 1 inch exclusive of plastering. This relaxation is accompanied by two restrictions: firstly, the mortar or other bonding material must not be permitted to project into the flue, and secondly, in the event of the enclosing material not being solid, any void in the material must not connect with the flue.

This by-law contains yet another relaxation in favour of the chimney of the ordinary open domestic gas fire. Whereas by-law No. 132 (2) (a) already has discriminated between the two classes of chimneys to the extent of specifying the minimum height of the chimney above the roof to be, in the case of a gas chimney, 18 inches as compared with 3 feet in the case of any other chimney, by-laws No. 132 (2) (a) makes this further concession:—

> "Subject to the flue with an incombustible adaptor fixed thereto being carried up to the roof space it may be continued by a flue pipe of incombustible material on the slope under the roof tiles to the ridge and thence ventilated to the open air by a ventilating cap on the ridge."

Obviously, this envisages a tiled pitched roof and the chimney situated on or near an external wall and rising to the eaves.

There is no exception to the requirement of by-law No. 132 (2) (b) with regard to the foundations or other supports to chimneys, nor to that of (c) with regard to the highest six courses of the stack being laid in cement mortar.

By-law No. 132 (2) (d) specifies the minimum measurement across a flue to be not less than 7½ inches in every direction "unless expressly provided in these by-laws." By-law 134 (2) with reference to flues in connection with open domestic gas fires requires their cross sectional area to be not less than 20 square inches and not less than that of the spigot of the gas fire. Although this does not "expressly provide" that a flue may be less than 7½ inches across in every direction, it is reasonable to infer that it is the intention that this by-law should be regarded as a relaxation of the general requirement of by-law No. 132 (2) (d). As the introductory clause of by-law No. 134 provides that No. 132 shall apply to the flues of ordinary open domestic gas fires subject to the subsequent modification, the general maximum limitation of 80 square inches must be regarded as applicable to gas flues also.

A further requirement of No. 134 (2) is that the flue of a gas fire shall be provided with a terminal cap as a precaution against down draught "unless the flue complies with the provisions of by-law 132." That is to say the flue must have a terminal cap unless it extends 18 inches above the roof, is at least 7½ inches across and is surrounded by at least 4 inches of the prescribed materials.

Paragraphs (e) and (f) of by-law No. 132 relative to the precautions with regard to flues with an inclination with the horizon of 45 degrees, contain within themselves exemption for chimneys for gas fires, as also does paragraph (g) with reference to the pargeting or lining of flues.

Paragraphs (h) and (i), respectively requiring precautions with regard to neighbouring combustible materials and with regard to the protection of neighbouring steelwork or reinforced concrete from the effects of heat or corrosion, are not modified in their application to gas fires either within themselves or by relaxation in by-law No. 134, and therefore operate with respect to gas flues as well as to flues for coal fires.

Paragraph (j) of by-law No. 132 prohibits the use of a flue for more than one fire subject to proviso (a) that when in a pre-by-law building compliance with this requirement is impracticable, a flue may be used for more than one fire provided the district surveyor approve. By-law No. 134 (3) still further relaxes the requirement of 132 (j) where a gas fire is concerned, by permitting the delivery of a gas flue into an existing flue, still subject to the district surveyor's approval but without restriction as to the exigency of the case.

Proviso (b) to paragraph (j) permitting more than one fire to the flue when the fires are in the same room, is applicable equally to the flues of gas fires and coal fires.

Paragraph (5) of by-law No. 134 prohibits the use of the flue or chimney of a gas fire being used for "any other fire" unless it complies also with the requirements of the by-laws appropriate to the flues for such other fire.

(*To be continued.*)

Report on Steelwork for Buildings.

The Institution of Structural Engineers, 11, Upper Belgrave-street, S.W.1, have published a revised edition of the Institution's "Report on Steelwork for Buildings," Part I, Loads and Stresses. This part of the report deals with the design of structural steelwork for all types of buildings, whether (a) combined as a complete steel frame, or (b) independent units supported on walls and/or walls and pillars. Copies of the report are obtainable from the offices of the Institution, price 1s., including postage.

Parts II, III, IV and V of the report, dealing with "Connections." "Materials and Workmanship," "Foundations" and "Details of Design and Construction," are to be compiled later.

The Measurement of "White" Papers.

The Printing and Allied Trades Research Association, Patra House, Robin Hood-court, Shoe-lane, E.C.4, have published Research Report No. 2. "The Measurement of 'Shades' of 'White' Papers," by V. G. W. Harrison, Ph.D., A.Inst.P., A.R.P.S

CHARTERED SURVEYORS' INSTITUTION

PRESIDENTIAL ADDRESS.

REFERENCE to the Highway Development Survey of Greater London was made on Monday, November 14, by Sir Charles Bressey, C.B., C.B.E., when he delivered his presidential address at a meeting of the Chartered Surveyors' Institution.

Sir Charles began by saying that if he devoted most of his address to the subject of roads, it was because the greater part of his working life, civil and military, had been spent in that service.

Following some remarks on the subject of road administration, the speaker turned to the Highway Development Survey which, he added, had occupied much of his time for three years past, in collaboration with Sir Edwin Lutyens.

The most prominent feature on the road map of Greater London was the arterial road system, nearly 300 miles in length, which had been created since the war, but which at no point approached nearer than 4½ miles to Charing Cross. It represented a notable achievement of incalculable value, but its reactions on the older traffic channels were formidable. There was a tremendous strain imposed on Inner London by the traffic tides surging along these great arterial roads of Outer London, which pointed towards the almost unchanged core of the metropolis.

The speaker quoted figures showing the increase of traffic on the older radial roads despite the advantages offered by the new parallel routes, and added: "No doubt the new arterial roads themselves create a substantial proportion of the traffic they carry, by stimulating, as railways have done, the industrial, commercial and residential growth of the areas traversed. But even allowing for this consideration, one is surprised to observe how rapidly the rising tide of traffic floods any additional channels that may be provided by roadmakers. Fortunately, many of the new arterial roads were so designed as to allow for traffic expansion, space having been left for a second carriageway, which has almost invariably proved to be necessary. In the light of subsequent experience it is to be regretted that this type of design was not standardised for arterial roads throughout Greater London, but the advantages of twin carriageways did not secure unanimous or immediate recognition.

"One must also regret that some short-sighted authorities have allowed buildings to advance beyond the very modest building lines prescribed when the arterial roads were laid out. The excuse is usually made that where domestic buildings are being converted into shops, it is indispensable that the fronts should be advanced. It would be more rational to insist that the entire forecourt space should be reserved for the service roads which a successful group of shops will ultimately require.

Inner London.

"With regard to Inner London it was remarkable that in some stages of London's development so little attention was bestowed upon road communications; particularly was this so with the narrow roads serving the docks and also the inadequate thoroughfares in the City at the Stock Exchange, the Mansion House, the Customs House, Liverpool-street Station, Billingsgate Market, etc.

"There is nothing that the City needed more in this twentieth century than a boulevard along the line of the ancient wall."

The speaker explained that the recommendations made in the Highway Development Survey Report fell into several categories, and he went on to review them in broad outline, speaking of the completion of unfinished schemes, connections across London, ring roads, by-passes, approaches to tunnels and bridges, dock areas and embankments.

Continuing, the speaker said: "It is interesting to consider whether the minutely subdivided highway administration of Greater London, as at present constituted, is suited to the carrying-out of a programme of the magnitude and complexity envisaged in the Report, which, by the way, includes many recommendations that would figure in any document of this kind, whoever the author might be. Is it to be expected that the complex administrative machine of Greater London, designed primarily for the maintenance of roads in comparatively restricted areas with jagged boundaries, can be successfully adapted to the task of constructing entirely new highways some hundreds of miles in length, located with no regard whatever to county or borough boundaries? Can any substantial progress be made without the setting up of a simpler, more direct, *ad hoc* organisation, immune from the vexatious delays that must always attach to the deliberations of heterogeneous groups of local bodies, with their committees, sub-committees, references to various Government Departments, etc.?

"The delays and uncertainties inherent in this procedure are apt to lead not merely to increased outlay but also to a grave loss of efficiency, owing to the direct course of a new road as originally designed having been thwarted by obstructive developments.

"As one glances at the map of this teeming area, with its multitudinous authorities and conflicting interests, one suspects that any report formulated on a broad regional basis is likely at best to meet with approval in general and rejection in detail, everyone agreeing that comprehensive measures are essential, but no public body being prepared to take the initiative, or to accept any scheme that appears of doubtful benefit to its particular locality, however small. The allocation of cost is sure to be a bone of contention, and haggling will be protracted; private initiative will, however, proceed without a check, building estates will be cut up, values will rise, and obstructions be created. In many areas on the outskirts of London, estate development has reached a stage at which the last available 'corridors' for new routes will soon be closed by streets and buildings."

In conclusion, the speaker said: "What has now to be faced is not merely the cutting of new routes, but the replanning to the public advantage of the areas lying within what I may term the 'zone of influence' of each route. Such duties could probably be most suitably performed by an Improvement Trust with few members, but with ample powers to undertake the safeguarding and construction of new routes, and the acquisition of adjoining territory, with a view to securing recoupment by redevelopment on the most enlightened principles."

SOCIETIES AND INSTITUTIONS

R.I.B.A.

Council Minutes.

Following are notes from recent proceedings of the Council of the R.I.B.A.:—

The action taken by the Executive Committee as a matter of urgency during the national emergency was reported to the Council and approved and confirmed.

The Board of Architectural Education reported that at the R.I.B.A. Statutory Examination for District Surveyors, held in October, two candidates sat, of whom the following was successful: Mr. Stanley J. Nunn.

The Board reported that seven candidates sat for the R.I.B.A. Examination for Building Surveyors, October, 1938, and that the following were successful: Messrs. C. W. Bucknall, E. T. Edwards, F. D. Entwistle, G. W. Gelson, B. G. Phillips, and R. Pope.

The Secretary reported that the drawings by John Sell Cotman and others bequeathed to the Institute under the will of the late Mr. Sydney Kitson had now been received from his executor, Mr. H. M. Hake. The cordial thanks of the Council have been conveyed to Mr. Hake and to Miss Elisabeth and Miss Barbara Kitson.

It was decided to send a special letter of thanks to Mr. W. Llewellyn Davies, Librarian of the National Library of Wales, for his generous and willing co-operation in giving a temporary home to the R.I.B.A. Library treasures during the recent crisis.

The President reported that as a matter of urgency he had appointed Professor Patrick Abercrombie to represent the R.I.B.A. at the National Conference of the C.P.R.E., held at Chester from October 13 to 16. The President's action was approved and confirmed.

Mr. Duncan Campbell (F.) was reappointed to represent the R.I.B.A. on the Trustees of the Elmes Fund for a further period of three years.

With regard to the R.I.B.A. Architecture Bronze Medals, the award of the Birmingham and Five Counties Architectural Association's jury in favour of Coroner's-court, Newton-street, Birmingham, designed by Messrs. Peacock and Bewlay (F.) was formally approved.

The suggestion that an exhibition of the late Sir Guy Dawber's water-colours should be held in the Reception Room in June, 1939, was cordially approved.

The Council, by a unanimous vote, elected the following architect to the Fellowship under the powers defined in the Supplemental Charter of 1925: Mr. Arthur James Marshall (L.), Johannesburg.

The following members were transferred to the Retired Members' Class: As Retired Fellows, W. H. D. Caple, A. H. Hart, R. Robertson and H. S. Tiffin; as Retired Associate, S. C. Brittingham.

The following resignations were accepted with regret: H. T. B. Spencer (A.), and W. H. Woods (retired L.).

Membership.

At a Council Meeting of the Royal Institute of British Architects held on Monday, November 7, 1938, the following members were elected:—

OVERSEAS.

As Fellow:

REUBEN, SAMUEL SIMON (Bombay).

As Associates:

HOFMEYR, J. H. C. (Liv'rp'l Sch. of Arch., Univ. of Liv'rp'l) (Johannesburg).

KALLENBACH, C. R. (Johannesburg).

SOUTH WALES INSTITUTE OF ARCHITECTS.

Illustrated Lecture.

Under the auspices of the South Wales Wales Institute of Architects (Central Branch) and the Institute of Builders, Mr. R. A. H. Livett, A.R.I.B.A., gave a lecture, illustrated by lantern slides, entitled "Housing in an Industrial City," at the lecture theatre, Engineers' Institute, Park-place, Cardiff, on Wednesday, November 9. Mr. Livett dealt with the problem of the slums, their clearance, and the various methods of rehousing. He considered the precautions which it is possible to take in order to prevent the creation of new slums, such precautions including not only the provision of well-planned estates with well-designed buildings, but also the inauguration of a sound system of house management.

In connection with the provision of blocks of flats, Mr. Livett dealt with the problems of refuse disposal and of lifts, and with regard to cottage estates he referred to the importance of planning on a large scale, with provision for adequate schools, churches, shopping and community centres, together with proper facilities for organised games.

A vote of thanks to Mr. Livett was passed, on the proposal of Mr. T. Alwyn Lloyd, J.P., F.R.I.B.A., P-P.T.P.I., seconded by Mr. W. S. Purchon, M.A., F.R.I.B.A. Mr. Gordon H. Griffiths, L.R.I.B.A., A.M.T.P.I., presided.

THE SOCIETY OF ENGINEERS.

Engineering Aspects of Air Raid Protection.

A paper on the "Engineering Aspects of Air Raid Protection" was read by Messrs. H. Chatley and H. Gutteridge at a meeting of the Society of Engineers on Monday, November 7. After discussing in some detail

the mechanics of bombing and explosion, the authors pointed out that ordinary structures give practically no protection at all, and that reinforced concrete and steel frames were far better on account of their continuity. Only low-placed interior rooms with strong walls and ceilings could give any useful protection in the older type of structure. It was suggested that all new buildings should be wholly of fire-resisting material and that the inflammable contents should be reduced to a minimum. Open fires should be abolished, furniture should be of metal or chemically treated woods, and blinds and curtains of non-combustible fabrics.

Sprinklers were strongly advocated, and for protection against direct concussion (*i.e.*, adjacent blast) walls must be designed to carry horizontal loads comparable with floor loadings. Flexibility and toughness was preferable to rigidity and brittleness. Buildings should be sub-divided into independently stable units, and ample escapes, rapid means of cutting off gas and electric current, and stop-flaps in lift shafts were important. The economic aspect of the matter was also emphasised.

UNIVERSITY COLLEGE SCHOOL OF ARCHITECTURE.

"Builder" Prizes.

The following *Builder* prize awards have been made at University College, London, School of Architecture :

£5 Junior Prize.—To be equally divided between J. C. Eastwick-Field, Bloomsbury House Club, Cartwright-gardens, and J. C. Stillman, 109, Campden Hill-road, Notting Hill-gate, W.8. Highly Commended.—Miss B. Buss, D. R. Childs, and J. Mumford.

£4 Senior Prize.—Helen S. Drill, 41, Gower-street, W.C.1. £1 Consolation Prize.—S. P. A. Hecht, 73, Woodlands-road, Surbiton.

GOLDSMITHS' HALL LECTURES.

The following lectures and discussions on different phases of silversmithing, illustrated by lantern slides, will be held at Goldsmiths' Hall this winter under the auspices of the Worshipful Company of Goldsmiths. The discussion at the first lecture, dealing with some of the problems raised at the Goldsmiths' Hall Exhibition, will lead up to the two subsequent meetings, the first of which covers individual work and the second mass production.

Lecture I, Friday, November 25, at 7 p.m. The Exhibition of Modern Silverwork at Goldsmiths' Hall : Its Aims, Organisation and Results. Chairman : the Prime Warden. Speakers will include : Mr. G. R. Hughes, Mr. Andrew Reid, Mr. Howard Robertson, V-P.R.I.B.A.

Lecture II, Monday, January 23, at 7 p.m. Presentation, Ceremonial and Church Plate : Design, Demand and Supply. Chairman : The Prime Warden. Speakers will include : Mr. Frank Dobson, Professor R. Y. Gleadowe, Mr. Edward Maufe, A.R.A.

Lecture III, Monday, February 27, at 7 p.m. Domestic Plate and the Factories : Some problems of manufacture, distribution and demand at home and abroad, with illustrations. Speakers : Invitations for this meeting are being sent to the President of B.I.B.O.A. (International Federation of Jewellery, Gold and Silverware), and to representatives of foreign countries, as well as to the Presidents of the British Trade Associations.

Applications for tickets should be made to the Clerk of the Goldsmiths' Company, Goldsmiths' Hall, Foster-lane, E.C.2. Owing to the great demand, tickets will be issued only to those having some definite connection with the silver trade or other special interest.

INSTITUTION OF MUNICIPAL AND COUNTY ENGINEERS.

In connection with the Autumn Examinations, 1938, of the Institution of Municipal and County Engineers, 84, Eccleston-square, London, S.W.1, the acting examiners have recommended a number of candidates in the Intermediate, County and Highway Engineering, and Building Inspectors' Examinations as having passed, subject to confirmation by the Council of the Institution.

THE CONTRACTOR'S OBLIGATIONS AND LIABILITIES—VI

By W. T. CRESWELL, K.C., Hon.A.R.I.B.A., A.S.I., etc., assisted by NORMAN P. GREIG, B.A., Barrister-at-Law.

THE CONTRACTOR AND THE LOCAL AUTHORITY'S BY-LAWS, ETC.

THE contractor, before entering upon the execution of the works under a building and engineering contract, must comply with the provisions of any statute, regulation or by-law in force in the particular locality where the building or works is, or are, to be erected, which may affect, or even govern, the nature of his preliminary operations, as well as the subsequent conduct of them. It may be that a local Act exists which may also considerably affect the proposed operations under the contract. It need only be mentioned here that, without the Metropolis, there is no single enactment of the nature of the London Building Acts of 1930 and 1935, hence, under local Acts, conditions in different localities may differ considerably.

In this connection, as is well known, formal building and engineering contracts (*e.g.*, the 1931 R.I.B.A. Form of Building Contract) usually provide, as a term of the contract, that the contractor must comply with and give all the notices required by any Act of Parliament, regulations and by-laws of any local authority and/or any public service, company or authority relating to the works or with those systems which are or will be connected, and he must pay and indemnify the employer against any fees or charges demandable by law in respect of the works. But (under the formal contract) the said fees and charges, if not expressly included in the contract sum, or stated as a provisional sum, are to be added to the contract sum (that is, the lump-sum price) and paid by the contractor. It is further provided that should any variation from the drawings, bills of quantities and specification be necessitated by any by-law or regulation, the contractor must first give written notice to the architect before complying with the requirements, giving reasons for the variations and asking for instructions. If he (the contractor) does not receive instructions within seven days he can proceed with the variations, and these must be measured and paid for as "extras" under the terms of the contract.

Generally, there are no fees payable by a contractor to local authorities outside the Metropolis, but within the Metropolis certain charges are made and are payable as fees to the district surveyors appointed under the London Building Act, 1930, section 173, and Fifth Schedule.

This, then, is the position under formal contracts, and so it can be laid down as a general principle that should a contractor knowingly enter into a building or engineering contract which infringes any statute, regulation or by-law, it is extremely doubtful whether if, when he has eventually to comply with the same, he could recover (unless the contract so provided) any additional expense incurred by his compliance.

It must be especially noted that even under a formal contract, quite apart from the fact that the architect or engineer may be satisfied that he (the architect or engineer) has complied with obligations under statute, regulation or by-law in preparing the contract documents, the contractor must comply with them in any event, from the commencement of the work comprised in the contract.

Water Supply.

It is obvious that a supply of water is an urgent necessity, both for the building works and for the amenities of employees. Arrangements must needs be made with water suppliers (local authorities or other undertakers) for the necessary supply, and the laying of temporary pipes with taps. These matters will be carried out subject to the by-laws of the undertaking concerned. Within the Metropolis, the Metropolitan Water Board is the supplier. Different arrangements may be made in different places, *e.g.*, the supply may have to be taken by meter, though sometimes a water-rate is charged upon the value of the building to be erected. These arrangements the contractor must find out for himself.

Temporary Buildings.

Workplaces will be required for various purposes, and workshops, sanitary conveniences, and places for workpeople to have their meals. As to this matter, the wise employer would do well to make himself aware of any requirements laid down in regard to conditions of labour, by the particular trade unions of which the workpeople are members, and which are available at the head offices of the particular organisation concerned

In regard to temporary buildings, the position within the Metropolis is that whilst, in general, wooden structures must not be erected in any place without a licence from the local authority (and that licence may contain conditions with respect both to the structure and the time it is permitted to continue in any place), wooden structures of a movable or temporary character erected by a builder for his use during the construction, alteration or repair of any building, do not require a licence from the local authority if the structure is taken down or removed immediately after the construction, alteration or repair is effected (London Building Act, 1930, Section 91 (2)). It has been held in L.C.C. *v.* Pearce (1892), 2 Q.B. 109, that a builder's pay office, mounted on wheels, did not require a licence for its erection. These movable erections are not rateable, provided they are removed at the completion of the building operations.

It must not be lost sight of that certain provisions of the Factories Act of 1937 are applied by Sections 107 and 108 of that Act to works of building and engineering construction—in particular, the provisions of Part I, those with regard to sanitary conveniences, and others (welfare regulations, special regulations as to safety and health), should such work be performed in any structure upon the works which would make the building in which it was performed a "workplace" and hence a "factory" under the Act, the old distinction between factories and workshops having disappeared.

Notices.

The contractor, again, is under an obligation to comply with the local authorities' requirements with regard to the notices required from the initial stages of the building or engineering works. These notices will vary according as the building, etc., works are within or without the Metropolis, and in the latter case must, by statute, be given to the district surveyor, who must, for example, receive the two days' notice required under the London Building Act, 1930, before commencing operations.

The contractor should make himself familiar at the outset with the position of water mains and sewers. With regard to the latter, any information may be obtained, at all reasonable hours, free of charge, from a perusal of the map of public services which local authorities outside the Metropolis are obliged to keep under the Public Health Act, 1936, and in this connection it need only be mentioned that buildings must not be erected over sewers or drains shown on the map, without the consent of the authority.

Finally, the contractor should be familiar with the regulations made by the local authority concerned, as to the connection of drains with sewers, and the requisite notice required before the connection can be made. Within the Metropolis the communication between drains and sewers is governed by by-laws made by the London County Council under Section 34 of the London Building Act of 1936; and outside the Metropolis by by-laws under Section 61 of the Public Health Act, 1936.

INQUIRY BUREAU

We are glad to give questions and answers, but cannot accept responsibility for contributed replies, especially on legal matters.

We do not undertake to reply to inquiries concerning proprietary materials.—ED.

QUESTIONS.

Acoustics of Hall.

SIR,—I should be grateful if any of your readers could advise me on the best way to improve the acoustics of a memorial hall. The ceiling is barrel-shaped, the walls plastered, and the windows fixed at a high level, 6 ft. to 8 ft. above floor. It is desired, owing to lack of funds, to improve the acoustics in the cheapest way possible. E. V. W.

Timber and Brick Houses.

SIR,—I am anxious to ascertain roughly what saving can be made in capital outlay by adopting timber construction for a house instead of the more usual brick. I think I may get the information I want if the question is put in the following form. Assuming identical specifications as regards roof, floors, doors, windows and internal fittings and finish, what would be the approximate difference in the cubic foot rate between two houses, one built of stock bricks and the other of timber? Am I correct in assuming that experience has shown that, under average conditions, timber construction is just as warm as 11-in. cavity walls? In the case of timber construction, is it usual to use a preservative? W. DE H. H.

The following answer has been contributed by a correspondent: "A properly constructed timber-built house is as warm to live in as one of 11-in. solid construction, and it will not deteriorate if carefully maintained, and either kept regularly painted or coated with preservative stain. The timber house, of course, must be built upon concrete foundations and with a brick base properly damp-coursed, so that the actual wall surface to be compared in the two forms of construction is limited. Broadly speaking, the cost per unit of area is about 1 : 2 in favour of timber construction, but spread over the entire cost of the finished building this would represent a saving of about 12½ per cent. only.

"In the case of a brick house costing, say, £1,250, the saving in timber construction would be about £100, and an extra maintenance charge of about £2 per year ought to be set aside on this account, which might be said to lock up a capital sum of about half of this saving."

ANSWERS.

Wasps Under Floor.

[ANSWER TO "H. P.," NOVEMBER 4.]

SIR,—There is no knowing where the nest is, though the chances are that it is conveniently near the air brick. Querist does not say how deep a space there is between the sleepers, but if there is good crawling room it would probably be best to cut out a sufficient hole in the outside wall to admit a man to investigate and clear the nest, without damage to the floor. PESTS.

Wall Treatment for Kitchen.

[ANSWERS TO "E. T.," NOVEMBER 4.]

SIR,—White tiles are effective for kitchens, as they can be readily washed down, but they should be continued from the floor to the ceiling, and not half way up, as is sometimes the case. The joints between them should be pointed with some moisture-resistant cement.

A good waterproof distemper or paint is suitable, as it contains no joints and can be cheaply renewed if necessary. W. E. W.

[An answer from Messrs. Pilkington Bros., Ltd., has been forwarded.]

Treatment of Walls Before Papering.

[ANSWER TO "H. S.," NOVEMBER 4.]

SIR,—One standard recommendation for the priming of new lime plaster surfaces involves the use of an alkali-resisting primer. The precautions necessary prior to the application of the primer are that the plaster shall be ascertained to be completely free from all traces of efflorescent salts and shall be completely dry. This primer exerts a sealing action on the porosity of the plaster, but its primary function is the prevention of the harmful effects upon either subsequent paint films or wallpaper from the active chemical agents present in the plaster. Before hanging the paper, the walls should be coated with medium-strength hot size and allowed to dry. Also they may be covered with a plain white paper of varying thickness to strengthen treacherous plaster surfaces and to give a better foundation for the wallpaper; finally, do not attempt to hang superior paper on bare plaster. A. J. T. E.

[The name of the manufacturers of the alkali-resisting primer will be forwarded on request.]

White-glazed Wall Tiling.

[ANSWERS TO "E. S.," NOVEMBER 11.]

SIR,—Provided the cement and sand backing was well secured to the brick walls and the tiles fixed immediately on the backing while more or less green, the trouble seems to rest with the class of key. The best key is a saw-tooth grip. If the small, round dots on many tiles are not of deeply dovetailed cut, they can give trouble. The Dutch tiles of years ago had no keys at all, but the biscuit of which the tile was made gave perfect adhesion on account of the open pores in the clay. The question of plenty of soaking enters into the subject of adhesion, as much as does the deep scoring of screeded wall. Each tile should be buttered separately with a fairly rich mix. G. W. H.

SIR,—A background of cement and sand mortar, scratched while fairly soft, or well wetted and scratched, is essential to make an effective "key" for bedding white-glazed wall tiling. Also, it is necessary for the tiles to be soaked in water for at least 12 hours before fixing. After the tiles have been thoroughly soaked they should be bedded with a mixture of one part Portland cement and two parts washed sand. Care should be taken when fixing wall tiling to see that the tiles are bedded evenly, that the courses are level, and that there is no projection or depression of a tile or tiles. Moreover, it is not good practice to render the walls first with cement and allow it to harden, as that method tends to rob the brickwork of its "suction" and causes the tiles to become loose sooner or later. A. J. T. E.

SIR,—This appears to be a case of insufficient wetting of the tiles and/or of the backing. Querist states that ample facilities for such soaking were supplied, but does not say whether those facilities were accepted. The process has to be very thorough and general to ensure success. TILING.

[An answer from T. S. W., Ltd., has been forwarded.]

Intercepting Traps.

[ANSWER TO "G. G.," OCTOBER 28.]

SIR,—Mr. Dicksee will know that the question of the use of intercepting traps has been under discussion for more years than either he or I care to remember; and that little or any headway has been made. Also that a decision is as far off as ever.

The report of 1912 was referred to for the reason that the committee set up to advise the Minister of Health in respect to the preparation of the Model By-laws, Series IV, Buildings, relied on the findings in that report, in coming to the conclusion not to make an intercepting trap compulsory. LEX.

Drainage.

[ANSWERS TO "ESTATES," NOVEMBER 11.]

SIR,—The local authority can, under Section 47 of the Public Health Act, 1936, require (by notice) that if a building has a sufficient water supply and a sewer available, that any earth closets provided for, or in connection with, the building shall be replaced by water closets.

The owner may be required to do the work, or the local authority may do it themselves. If the local authority do the work, they (not the water authority) can recover from the owner one-half of the expenses reasonably incurred by them. Similarly, if the owner is required to do the work, he can recover from the local authority (not the water authority) one-half of the expenses reasonably incurred by him. LEX.

SIR,—If the authority has a collecting service it can only claim that the sanitary arrangements shall conform to its own by-laws, which would generally demand a water-tight cesspool or properly maintained earth closets, or both. RURAL.

Structural Repairs.

[ANSWERS TO "TENANTS," NOVEMBER 11.]

SIR,—In the circumstances, the landlord is undoubtedly liable, under his covenant, for the repairs to the floor timbers, etc. But he might recover from the tenant if he can show that the present tenant has not made proper and fair use of the premises. The tenant can, of course, answer by proving that there were latent faults and defects existing when he took over the premises. If the matter is of any consequence to "Tenants," they should take legal advice. LEX.

SIR,—In the absence of any clause restricting the laying of linoleum, the tenant is not responsible. Dry rot of timber comes under structural repairs, unless caused by the tenant.

Dry rot of floor boards would not be caused solely by the laying of linoleum. W. E. W.

Private Sewers.

[ANSWERS TO "ANNOYED," NOVEMBER 11.]

SIR,—Apparently no connection has been made to a public sewer, but only to a small sewage disposal plant common to the five houses. That being so, the owners of the five houses, though different owners, have each an easement only over the sewer in question, and are jointly liable for its repair. It is not a public sewer but a private sewer, and the borough council is not liable for keeping it, or the sewage disposal plant, in order. LEX.

SIR,—This contention is quite incorrect in two respects: (1) in that the question as to whether the joining of two drains from separate properties creates a public sewer has not been finally decided, and (2) in that this certainly does not apply to a private disposal plant which has not been taken over by the sewerage authority. Surely, also, the properties would have been subject to some covenant in respect of the disposal system. DRAINS.

Artificial Drying-out of Buildings.

[ANSWERS TO "P. S.," OCTOBER 28.]

SIR,—Artificial drying-out is used by many builders in the form of fires, but without a good air circulation it is a failure and, in any case, only dries the surface. A considerable amount of moisture is contained in the constructional work, which gradually works to the surface. This cannot be hastened, and drying-out is largely a matter of time and the temperature of the atmosphere both inside and outside the building. W. E. W.

What is "Constant Hot Water"?

[ANSWERS TO "H. C.," OCTOBER 28.]

SIR,—If one went to law, the argument would hinge on the word "constant," which means "unchangeable and continual." "Hot" can mean "having heat" or "very warm." It would seem best to warn the owners that one will cease the tenancy if the matters complained of are not remedied; the question of release would mean probably an action at law. G. W. H.

SIR,—Complaints of insufficient hot water are sometimes due to the installation of too small a heater. The action of turning on the hot tap in any part of a flat or house causes a multi-point gas water-heater to function and deliver hot water at a constant temperature for as long as it is fed with gas and water; and a modern automatic electric water-heater of adequate size will give an instantaneous supply of hot water at the turn of the tap. I would advise querist not to attempt to be released from his contract, but endeavour to get his landlord to instal either a modern gas or electric automatic water-heater. A. J. T. E.

IN PARLIAMENT

Housing Statistics.

MR. DAY asked the Minister of Health whether he could give particulars of the number of houses that have been erected for sale or to let during the two years ended at the last convenient date, and had he any particulars of the number of houses at present under construction.

MR. ELLIOT said that during the two years ended August 31, 1938, 157,269 houses were built by local authorities and 4,737 houses by private enterprise with State assistance under the Housing Acts. Practically the whole of these houses were built for letting. The number of houses which were in course of erection at August 31, 1938, by local authorities and by private enterprise with State assistance was 76,968. Statistics of houses built by private enterprise without State assistance were obtained half-yearly. In the two years ended March 31, 1938, 530,597 houses were so built. Statistics of the proportion of such houses built for sale and for letting respectively related only to houses of rateable value not exceeding £26 (£35 in Greater London). Of the 530,597 houses, 463,625 were houses of a rateable value not exceeding the figures mentioned, and of these 145,544 were shown in the returns as in the occupation of persons other than their owners. The number of houses at present under construction by private enterprise without State assistance was not known.

Progress at Esher.

MR. MCENTEE asked the Minister of Health whether he was aware that there was a serious shortage of housing accommodation in the area of the Esher Urban District Council; whether he had considered a petition signed by about 550 people living in the area in August, 1937, asking for an inquiry into the matter; and what steps he was taking to relieve the overcrowding.

MR. ELLIOT said he had received certain allegations on the subject and had also considered the petition, and understood that the Urban District Council were about to seek his approval to a scheme for the erection of 124 houses in different parts of the district. The number of cases of overcrowding in the area had been reduced from 67 to 32, and the remaining cases would, he understood, be relieved as soon as the new houses were ready.

Burning Refuse Heaps.

MR. W. J. STEWART asked the Minister of Health what action had been taken up to date by his department to deal with the question of burning refuse heaps in many parts of the country which were a serious menace to the health of the people living in those particular areas.

MR. ELLIOT said that a systematic investigation of burning spoilbanks by his alkali inspectors is proceeding. 151 out of a total of 266 reported to him had been visited. Further visits would be necessary in some cases to ascertain the practicability of remedial measures. Wherever remedial measures had been recommended by the inspectors, further visits were being undertaken to determine the efficacy of the measures. He estimated that the completion of the survey would take approximately another eighteen months.

Car Parks as Air-Raid Shelters.

MR. MCENTEE asked the Minister of Transport if he was aware of the inadequacy of car-park accommodation in the London area; would he consider the advisability of providing adequate car-park space underneath our parks and open spaces in places where such accommodation was needed; and would he, in planning their construction, have regard to their suitability for air-raid shelters in time of war.

MR. BURGIN said he had no power either to provide or to require the provision of car-park accommodation, but he was doing all he could to encourage the local authorities in London to provide car parks where existing facilities were inadequate. He was advised that an application to the Home Office by a local authority for a contribution in respect of additional expenditure proposed to be incurred in adapting underground garages for the purpose of a public shelter would receive consideration.

Housing Progress.

MR. ELLIOT, the Minister of Health, replying to opposition critics, said that the progress of housing continued unabated. For the first nine months of this year over 70,300 houses were completed by local authorities, as compared with 53,500 houses during the corresponding months of last year. The number of houses completed within the last three months was 24,770. This time last year there were some 66,400 houses under construction. This year there were some 77,000 houses under construction. The figures for last month just received showed that the number of new houses completed by local authorities was 8,200, and the number of houses whose construction had been confirmed by the Minister during the month was 6,510. Both these figures were records. The original slum-clearance programme covered 267,000 houses. The Ministry had nearly doubled that. The latest figure was 465,000 and the figure was still rising. Of those, 212,000 had actually been completed and they had now approved for slum clearance purposes the building of 309,000. There remained plenty of slum clearance work to do, but that was being done faster than ever. Over 1,000,000 people had been moved out of the slums and they were now moving people out at the rate of 1,000 per day.

Despite the prior concentration on slum clearance, houses for the abatement of overcrowding were being approved and completed at the rate of 1,000 a month. Building progress had been accelerated this year and had reached a very high level.

What was important now was that local authorities should look forward to next year's programme and ensure that there was a continuity of building operations. The local authorities were looking forward in the matter, because proposals for the erection of over 7,000 houses had been approved by him during October. Despite all that had been and was being done, there still remained a great building programme and it was the intention of the Government to carry it through. The acceleration of municipal housing had been accompanied by the maintenance of a remarkable output of houses by private enterprise. He had every reason to think that the output would be still at a high level but not at the peak point which they had seen in previous years. The output of houses in rural areas was being accelerated by reason of the subsidy under the Housing Act, 1938. There was no intention of cutting that down. The amount of reconditioning of houses in rural areas was on the increase. During the last year for which figures were available some 4,000 houses were approved for reconditioning as compared with 2,900 for the previous year.

ELECTRICAL CONTRACTORS.

Membership.

At a recent meeting of the Electrical Contractors Association Council, Africa House, Kingsway, W.C., a number of applications for membership were considered and the following contractors were admitted to full membership :—

Boardley and Roberts, Lowestoft; C. H. Rust, East Finchley; J. S. Bennett, Wargrave; L. M. Whymant, Thornton Heath; H. T. Barden, Maidstone; A. H. Barber, Southsea; R. Ellis, Port Talbot; Lewis and Rees, Llanelly; D. J. Thomas, Llanelly; J. Williams and Sons, Burry Port, Carm.; Thos. Leaman and Son, Torquay; T. H. Davis, Coventry; Whitmore and Warwick, Coventry; Frank Jowitt, Ltd., Ripley; J. W. Marland, Ashton-under-Lyne; B. C. Burnell and Co., Peel, I.O.M.; A. Craig and Co., Onchan, I.O.M.; A. R. Partington, Peel, I.O.M.; W. Martindale and Co., Preston; Frank N. Gort, Lowestoft; W. Bradley and Son, Sheffield.

The following contractors were admitted to Associate Membership :—Job's Electrical Co., London; J. E. Leech, Leytonstone, E.11; Tucker Bros., Hornchurch, Essex; D. P. Toomey and Co., Ltd., Brighton; E. Leaverland, Ltd., Bradford; J. B. Wilson, Whitley Bay ; Stanley P. Garnett, Broughton, Preston.

BUILDERS' BENEVOLENT INSTITUTION

ANNUAL DINNER.

"IN the 86 years of its existence this Institution has carried on the great work of extending a helping hand to those who have found themselves in difficulties." Thus MR. JOHN M. THEOBALD, P.-P.S.I., M.I.Struct.E., President of the Building Industries National Council on November 9, when he proposed the toast of "The Builders' Benevolent Institution" at the annual dinner of the Institution at the Connaught Rooms, Great Queen-street, W.C.2. Mr. L. C. D. Hannen, the President, was in the chair. Mr. Theobald went on to say that the greatest satisfaction one could have was helping people to overcome troubles which, without aid, they would be unable to overcome. "The bridge of this Institution has stood for nearly 100 years," continued the speaker, "but the traffic on it is increasing year by year, and now it stands in need of reinforcement and underpinning. This Institution does not advertise its need, but leaves its work to advertise itself. The only advertising it does is the occasion of this annual dinner every year. Life nowadays is a hard master, and it is for those who have broken down under the stress and strain that I am appealing to-night."

Responding, the PRESIDENT said : "As you know, the Builders' Benevolent Institution is concerned in distributing pensions to those of our colleagues who have fallen on bad times, and at the present time 44 builders and 16 temporary assistants are receiving pensions. All applicants are sympathetically inquired into personally by members of the Committee, and every care is taken to ascertain the true facts. Male applicants receive £52 per annum and female applicants £39. The benefits can be granted to builders or their widows who have been in established business for ten consecutive years within a 15 miles' radius of Charing Cross.

"In recent years no eligible candidate has been turned away, but it is only by your generosity that this happy state of affairs can continue, and I do thank all those who have already contributed so generously."

In conclusion, the speaker mentioned that the amount of donations had reached a total of £1,450, and expressed his thanks to the Committee for the help they had given him since his term of office began.

MR. G. R. HOLLAND, F.I.O.B., President of the London Master Builders' Association, who proposed the toast of "The Builders' Merchants and Allied Trades," said it was impossible in modern building not to have to call a specialist into consultation. "The present time," continued the speaker, "is one of specialisation, and, much as we regret that we have lost a certain amount of the control that we used to have, the co-operation existing between the specialists and ourselves is a very happy one. We all have the same object in view—the health and welfare of the building industry."

COL. S. C. MARRIOTT, T.D., responded.

MR. T. P. BENNETT, F.R.I.B.A., Hon. F.I.O.B., Hon. F.I.B.D., replying to the toast of "The Visitors," proposed by MAJOR F. A. WALLIS, M.C., F.I.O.B., Vice-President of the London Master Builders' Association, said that there would be little need for the work of the Builders' Benevolent Institution if they could persuade the Government to have a planned programme of public works and stop local authorities from building town halls in boom periods.

Among those present were Sir Alfred Hurst, Major R. J. Holliday, Major A. D. S. Rice, Major L. Shingleton, and Messrs. A. H. Adamson, B. C. Aldous, H. H. D. Anderson, R. Angell, A. Strachan Bennion, Ben Carter, A. B. H. Colls, Frank Cox, K. M. B. Cross, L. A. Culliford, T. S. Darbyshire, G. F. Earle, George Gee, C. Lovett Gill, M. W. Godson, J. H. Greenwood, Stanley Hamp, B. R. Hannen, Leslie Holland, R. T. James, F. M. Kirby, Harry Neal, Oswald E. Parratt, W. J. Rudderham, Frank Scarlett, C. H. Laidlaw Smith, F. W. Stratton, C. C. Trollope, Thomas Wallis and John Wilcox.

THE FRAMING OF JOINERS' WORK

LECTURE AT CARPENTERS' HALL.

THE fourth of the series of lectures at Carpenters' Hall, E.C., was given on a recent occasion by Mr. N. W. Kay, of the Hammersmith School of Building. His subject was "The Framing of Joiners' Work."

The lecturer said that in the sixteenth century the craft of the joiner emerged from the cruder woodwork of the mediæval carpenter as the result of a revolutionary discovery. Someone, a humble and unnamed craftsman, in an effort to subdue the natural tendency of wood to warp and shrink, invented the panelled frame. This consisted of a framework of narrow members with a loose filling which could swell and shrink without splitting or warping. The introduction of framed woodwork was the beginning of joinery. By the seventeenth century the mystery of joinery was firmly established, and differences of opinion arose between the Company of Carpenters and the Company of Joiners as to what work belonged to each section. A committee was appointed, and their report stated that joiners' work should include the making of "all formes of fframes made with mortesses and tennants, glewed, pynned or duftailed . . . all sorts of work made for ornament or beautie which cannot be made without the use of glew."

Subsequent improvements in the method of converting timber and the introduction of the pit-sawyer enabled the joiner to use wide panels with a minimum of framing. To conceal the shrinkage which must take place in wide boards large bolection mouldings were employed. The use of thin boards of uniform thickness also brought about the built-up sash frame and the elaboration of interior fittings.

In more recent times the invention of wood cutting machinery had made it possible to produce smaller and cheaper scantlings and mouldings, while the invention of mortising and tenoning machines had enabled the four-panelled door to supersede the simple type of ledged door in the homes of the people. Another change brought by machinery had been the setting up of further divisions in the ranks of the woodworkers. Besides carpenters, joiners and cabinet makers, we now had machinists, setters-out, joiner fixers, staircase joiners, shopfitters, etc.

Stock and Detailed Joinery.

Joinery to-day could be divided into stock joinery, mass produced to a standard size, and detailed joinery made to a particular order for an individual job. In stock joinery the joiner only assembled the machined parts. High-class joinery differed considerably from this: the wood was used in larger sizes and in more elaborate forms. This necessitated special precautions in the selection of the timbers used and in their framing.

In framing, the fixed members should be as small as possible in width and thickness, and the joints such as would enable the frame to retain its shape. The connections should be grooved, tongued or housed so that if movement took place an open joint would not be exposed. In the framing members themselves the grain should be parallel to their length, and all joints, fixings and end grain should be hidden from view as much as possible. The arrangement of the framing members depended on the method of fixing the frame. As a general rule the mortise was cut in the fixed member—for example, door and window frames were fixed at top and bottom, therefore the head and sill ran through the full length and the jambs were tenoned to them. But in frames fixed at the sides, the vertical members or stiles ran through, and the horizontal members or rails were tenoned to the stiles. In external work, ledges that would hold water should be avoided by using bevelled surfaces and throatings, and the joints should be treated with a good preservative; in internal work the joinery should be well ventilated to prevent decay and excessive movement.

The latter part of the lecture was illustrated by lantern slides. In the course of his remarks explaining these the lecturer said that the best softwood for joinery was the red or yellow deal from Archangel. This softwood was known under various names and the tree from which it was cut was distributed through north-western Europe. In this country it was known as European redwood. One effect of machinery on joinery was that there was a tendency to produce small members and many joints. In machine work mouldings which could be scribed were better than mouldings which must be mitred. Even in hand work the mitre was not considered a good joint: it was liable to gape when the wood shrank. On the other hand, the scribed joint, where one moulding was cut to the profile of the other, could be fitted under pressure, and shrinkage would not expose a gaping joint. The shrinkage was only equal to the shrinkage of one member, and that did not present itself squarely to the eye; while the sprung mitre joint advertised itself. But whereas the mitre could be applied to all mouldings the scribed joint was not practicable when the moulding was undercut or ran to a feather edge.

High Class and Domestic Work.

Showing a slide illustrating double framed and panelled door linings, the lecturer said that the greatest difference between high-class joinery and domestic joinery was that more attention to detail was demanded if the larger pieces of timber used were to be persuaded to keep still in the positions in which they were fixed. For fixing purposes framed grounds were used, the primary object of these being to obtain an even plane on which to secure the joinery. They could be packed out as necessary to overcome any irregularities in the wall. They also enabled the joinery to be fixed when the plastering was dry and when the heavier trades had finished. They should be wrought on both sides, with a splay on the appropriate edges to form a key for the plaster. They should not be creosoted, because this treatment would stain the finished work, but they might be treated with some water soluble or proprietary preservative.

Another illustration was a patent storm-proof window. It did not follow, concluded the speaker, that an article was bad because it was mass produced, and the casement shown was a far better job than a hand-made article at the same price. Its construction did not rely on the traditional close fitting. The success of the window was due to the air spaces and the many throatings which reduced the velocity of the air and so prevented rain penetrating inside the frame.

PUBLIC HEALTH CONGRESS AND EXHIBITION

THE Public Health Services Congress and Exhibition was opened on Monday, November 14, at the Royal Agricultural Hall, London, N., by the Rt. Hon. Walter E. Elliot, Minister of Health. The exhibition is on a much larger scale this year than in previous years. Following are notes on some of the stands:—

CARRON COMPANY, on Stand No. 83, exhibit a selection of standard design cooking apparatus suitable for hospitals and public institutions, including an insulated solid fuel cooking range with two large ovens and hot-plate heated for cooking over the whole area, a battery of wet steaming ovens, a steam-jacketed tilting boiling pan, an electrically heated cooking range, an electric grill, a steam hot-closet and a steam-heated water-boiler.

A comprehensive range of hand-carts, street orderlies, trolleys and ladders is shown by CAYLESS BROS. (BATTERSEA) on Stand No. 25. Two items of special note are a telescopic tower ladder mounted on pneumatic wheels, and a pneumatic-wheeled scavengers' truck.

DREW, CLARK AND CO., on Stand No. 58, are exhibiting one of their "Council" pattern telescopic tower ladders. Also shown are lamp-cleaners' ladders, a comprehensive range of "Diamond" patent extension ladders, "Push-Up" extension ladders, patent automatic platform steps, painters' trestles, and "Rap-Rig" patent scaffolding for the interior decoration of halls and public buildings.

A comprehensive display of gymnastic and physical training apparatus is shown on Stand No. 32, that of THE EDUCATIONAL SUPPLY ASSOCIATION.

JOHN FOWLER AND CO. (LEEDS), LTD., exhibit on Stand No. 87 the Fowler "Precision" Diesel Road Roller, fitted with power steerage, water spraying apparatus and awning, 30 h.p. Fowler-Sanders Patent Diesel engine, with patent resilient drive, four road speeds, and water ballast wheels.

A wide range of sewage purification machinery is shown on Stand No. 109 by JONES AND ATTWOOD, LTD., Stourbridge.

B. JOHNSON AND SON, Stand No. 55, exhibit a number of "Benjo" power rammers for trench or ground consolidation. Also shown are a trench timber grip, for use in drawing timber from trenches, and a few examples of Expanding Stretchers, for quick timbering in trenches.

IMPERIAL CHEMICAL INDUSTRIES, LTD., exhibit types of liquid chlorine containers in common use, and in a display set out the various applications of chlorine at all stages of sewage disposal. There are also displays of "Chloros," a disinfectant, "Termex," a product for the extermination of crickets, and British HCN (hydrocyanic acid gas)—a fumigant (Stand No. 86).

Shown on the stand of R. H. NEAL AND CO., LTD. (No. 105, Main Hall), are some of the firm's smaller "Rapid" cranes, and also a concrete mixer and portable pumping sets.

A special feature of the stand of PINCHIN, JOHNSON AND CO., LTD. (No. 78), is an exposition of the gas-resisting properties of "Vigorised" paints for air-raid shelters, etc., and "Vigorised" dressings for anti-gas suits and fabrics. Many actual tests are demonstrated, illustrating the durability, resistance, toughness, gloss and ease of application of these patented "Vigorised" coatings.

A model showing the system of floor construction of SMITH'S FIREPROOF FLOORS, LTD. (Stand No. 47) is exhibited, and a full-size section of the floor can be seen on "Trianco" patent telescopic centers, illustrating the method of construction used in this "two-way" reinforced fireproof floor.

VAUXHALL MOTORS, LTD., on Stand No. 84, exhibit three vehicles, the Bedford 3-ton S.W.B. hydraulic end tipper; the Bedford De Luxe Ambulance; and the Vauxhall "S" type ambulance.

A full range of enamels, paints and varnishes is shown by CHARLES TURNER AND SON, LTD., Stand No. 138, including aluminium wood primer, "Anti-rugine" metallic paint, synthetic varnishes and enamel.

A number of papers on subjects of interest to the constructional and planning professions were read during the Congress, and will be reported in a subsequent issue.

SCHOOL NEWS

LECTURES ON INSECTS INJURIOUS TO TIMBER.

A COURSE of five lectures with practical work, during the Lent Term, 1939, on "Insects Injurious to Timber," will be given by Mr. F. R. Cann, D.I.C. (of the Forest Products Research Laboratory, Princes Risborough), at Chelsea Polytechnic, Manresa-road, London, S.W.3 (Department of Biology), on Mondays, 7 till 10, beginning January 16, 1939. This course is of interest to members of the timber trade, architects, builders, furniture manufacturers and others handling wood or wood products. It includes an account of the habits of the insects concerned, methods of distinguishing the various types of damage and means of reducing the losses which result. The fee for the course is 7s. 6d. Membership of the class will be limited to 30. Applicants should write in the first place to Mr. F. R. Cann, Forest Products Research Laboratory, Princes Risborough. Students will enrol and pay their fees when they attend at Chelsea Polytechnic for the first lecture, on January 16.

NEW BUILDINGS IN LONDON

ACTON.—ALTERATIONS.—And additions are to be made to premises in Swainson-road, W.3, for Messrs. Stewart and Ardern, Ltd. The architect is Mr. Morris Joseph, A.R.I.B.A., 47, Bloomsbury-square, W.C.1. The building contract has been placed with Mr. A. A. Shaw, 105, Mill Hill-road, Acton, W.3.

BALHAM. — SHOWROOMS. — The Wandsworth B.C. has given permission for erection in Old Devonshire-road of two storey office and showroom addition at premises of Messrs. Lewis and Co.

BARNET.—EXTENSIONS.—In our last issue we stated that Messrs. Paine and Hobday, Millbank House, Wood-street, S.W.1, were the architects for extensions to Wellhouse Hospital, for the Herts C.C. This we are informed is incorrect.

BARNET.—FACTORY.—The Royal National Life-Boat Institution, 42, Grosvenor-gardens, S.W.1, has acquired land along the Barnet By-pass for a new factory. The architect is Mr. Herbert Kenchington, F.R.I.B.A., 7, Staple Inn, Holborn, W.C.1, and a contract has now been placed with Messrs. Wm. Moss and Sons, Ltd., North Circular-road, N.W.2.

BECKENHAM. — STATION.—The T.C. has accepted the tender of Messrs. A. Coldman and Son, Ltd., 60, Heber-road, East Dulwich, S.E.22, for a branch fire-station, 6 firemen's houses, etc., at Glebe-way. Plans are by Mr. P. Parr, A.M.Inst.C.E., Town Hall.

CARSHALTON.—CONVERSION.—The Council have applied to the M.H. for sanction of a £13,500 loan to buy the College of St. Saviour's and Diocesan House, opposite Carshalton Pond, which they propose to convert for public offices and a public swimming bath.

CLAPHAM.—EXTENSIONS.—Messrs. Searle and Searle, 34, Paternoster-row, E.C.4, are the architects, and Messrs. J. Garrett and Son, 83, Balham-hill, S.W.12, are the builders for extension of premises of Messrs. Ross, Ltd., on site of 31-33, Macaulay-road, Clapham North.

CRANFORD. — FLATS.—Plans have been prepared for the development of Meadowside, Bath-road, by 7 blocks of 10 flats each. The architect is Mr. R. Harold Brine, 7, Park-lane, W.1.

CROYDON. — SCHOOL. — The T.C. has accepted the tender of Messrs. Truett and Steel, Ltd., 71, High-street, Thornton Heath, at £14,869, for the proposed elementary school at Overbury-crescent, Addington. Plans have been prepared by the committee's architect, Mr. Amos Sunderland, F.R.I.B.A., Education Offices, Croydon, whilst the quantity surveyors are Messrs. Fleetwood, Buss and Anns, 4, Verulam-buildings, Gray's Inn, W.C.1.

CROYDON.—SCHOOLS.—Messrs. Hicks and Bennett, AA.R.I.B.A., 18, Katherine-street, Croydon, are the architects for the new Davidson school, and Messrs. W. G. Newton and Son, FF.R.I.B.A., Tudor Cottage, Selsdon-road, South Croydon, are the architects for the new Portland school. Both schemes are for the T.C.

EALING.—CHURCH.—The London Diocesan Building Fund has approved the erection of a new Church of St. Mark's, vicarage, etc., in Hanger-lane, for which the contract has been let to Messrs. J. Garrett and Son., Ltd., 83, Balham-hill, S.W.12. The plans have been prepared by the Hon. John Seely and Paul Paget, F.R.I.B.A., 41, Cloth-fair, E.C.1. The quantity surveyors are Messrs. W. H. Langdon and Every, 292, High Holborn, W.C.1.

EDMONTON. — HALL.—Plans have been prepared by Mr. H. Reginald Ross, L.R.I.B.A., 65, Chancery-lane, W.C.2, for a dance-hall, etc., in Cambridge-road.

ERITH. — SHOWROOMS.—The U.D.C. has placed a contract with Messrs. M. J. Gleeson, Ltd., London-road, North Cheam, at £30,225, for new electricity showrooms at Pier-road. Mr. J. H. Clayton, engineer and surveyor, has prepared the plans.

ESSEX.—BUILDING.—The C.C. has recommended the tender of Messrs. A. D. Jackson and Sons, Ltd., of Southend-on-Sea, amounting to £46,128, for carrying out works at the Suttons Institution, Hornchurch; the Council also propose extension of the existing tradesmen's workshops and the erection of a toolhouse and woodshed at Suttons Institution, Hornchurch, at £2,014; and extending the laundry, at £5,650; erection of the Beacontree Heath proposed council junior school, to provide accommodation for 450-500 pupils, at £19,334; erection of the Buckhurst Way proposed council junior school, to provide accommodation for 300 pupils, at £17,394; a gymnasium block at the Romford Heath Park council senior girls' school, at £2,521.

FINCHLEY. — SHOWROOMS.—And service station are to be erected in North Circular-road, N.W., to the plans of Mr. R. T. Grummant, A.R.I.B.A., 120, Station-road, New Barnet. The contractors are Messrs. Hudson Bros. (Builders), Ltd., 207, St. John's-hill, Battersea, S.W.11.

FINSBURY PARK. — IMPROVEMENTS. — Messrs. Geo. Parker and Sons, Ltd., 124, Sumner-road, Peckham, S.E., are demolishing 102, Blackstock-road, N.4, to make way for improvements to the depot of Messrs. Pickfords, Ltd., High Holborn, W.C.1, at the rear. The plans are by Mr. J. E. Beaumont, of Messrs. Pickfords.

GREENFORD.—SCHOOL.—The Ealing E.C. are to have plans prepared, and tenders invited for the proposed Selborne senior boys' school. The committee's architect is Mr. C. W. Seddon, M.Inst.C.E., Town Hall, W.5.

GROSVENOR-STREET. — OFFICES. — And showrooms are to be erected on the site at Nos. 71-72. Messrs. Anns and Haigh, L. and A.R.I.B.A., 58, Grosvenor-street, W.1, are the architects. The builders are Messrs. F. G. Minter, Ltd., Ferry-works, Putney High-street, S.W.15, and the quantity surveyors, Messrs. C. E. Ball and Partners, Dilke House, Malet-street, W.C.1.

HAMPSTEAD. — BUILDING.—Tenders are being invited by the B.C. for the erection of a two-storey steel-framed building. The Borough Engineer, Mr. J. E. Swindlehurst, M.A., M.Inst.C.E., has prepared the plans.

HAMPSTEAD.—BUILDING.—The tender of Messrs. Hinkins and Frewin, Ltd., Cranham-street, Oxford, has been accepted, at £10,453, for the new wing of St. Mary's Convent, 47, Fitzjohn's-avenue. Mr. L. H. Shattock, F.R.I.B.A., 26, Victoria-street, S.W.1, is the architect. The quantity surveyors are Messrs. Drower and Son, 28, Victoria-street, S.W.1.

HANWELL. — ALTERATIONS. — And additions are to be made to premises, 29, Boston-road, W.7, for Messrs. Bishop's Stores, Ltd. The contractor is Mr. E. J. Morgan, Oxford-road, New Denham, Uxbridge. The architects are Messrs. G. A. Sexton and Sons, 42, Kilburn High-road, N.W.6.

HAVERSTOCK-HILL. — SHOWROOMS. — Messrs. Cole-Adams and Phillips, 45 Lower Belgrave-street, S.W.1, are the architects for showrooms at 215, Haverstock-hill. The estimate of Messrs. R. Dixon and Sons, Britannia-works, Park-walk, Chelsea, S.W.10, has been recommended for acceptance.

HERTFORD.—ALTERATIONS.—The T.C. has passed plans for alterations to the "Diamond" public-house in Railway-street, for Messrs. McMullen and Sons, Ltd., of Hertford.

ILFORD.—HOUSES.—The T.C. has passed plans for Mr. J. R. Crewes, 79, Clinton-crescent, Hainault, for 52 houses and garages, 17-47 and 34-52, Aragon-drive, 1-15, and 2-16, Montfort-gardens, and 2-20, Boleyn-way.

ILFORD.—HOUSES.—Mr. E. Meredith, F.R.I.B.A., 6, Victoria House, High-road, Goodmayes, has prepared plans for 16 houses, 94-122a, Craven-gardens, 12 flats off Craven-gardens and four houses and garages in Virginia-gardens. Mr. E. J. Robinson, 40, Eastern-avenue, Ilford, is the contractor.

ILFORD.—FACTORY.—The contract for the erection of a factory for the Plessy Co., Ltd., has been placed with J. T. Luton and Son, Ltd., London, E.15. The plans are by the owners.

ILFORD. — EXTENSION.—The governors of Cranbrook College, Cranbrook-road, have placed a contract with Messrs. Hammond and Miles, Ltd., Scrafton-road-works, Ilford, for a new two-floored wing. The architect is Mr. W. J. Lewis, F.R.I.B.A., 37, Cranbrook House, Cranbrook-road, Ilford.

KINGSBURY.—SCHOOL.—A senior school, estimated to cost £83,600, is to be built in Bacon-lane, Roe Green, Kingsbury, and the Middlesex E.C. has provisionally accepted a tender.

LAMPTON.—FLATS.—Messrs. Mullins and Harringtons, 22, Buckingham-street, W.C.2, have prepared plans for a block of 21 flats and 12 garages in Lampton-avenue. No contracts let.

LONDON.—BUILDING.—The L.C.C. Education Committee has recommended the tender of Messrs. W. J. Marston and Sons, 1, Stephendale-road, Fulham, at £9,672, for reconditioning the Fulham central girls' school. The Housing Committee has proposed £152,250 in respect of the erection of dwellings on the Tufnell Park-road site, Islington.

MERTON PARK.—CLUB.—And offices are to be erected in Ashridge-way, S.W.19, for the Merton Park Ratepayers' Association. Plans have been prepared by Messrs. Edwin Evans and Sons, 253, Lavender-hill, Battersea, S.W.11.

MORTIMER-STREET.—ALTERATIONS.—And additions are to be made to No. 45, for Messrs. Bloom and Sinjeck, Ltd. Plans have been prepared by Messrs. Moore and Hunter, 1, Newman-street, W.1. No contracts let.

MUSWELL-HILL. — EXTENSIONS. — Including a large billiards hall, are to be made to the "Green Man" hotel, at about £6,000. Plans have been prepared by Mr. Edward Meredith, F.R.I.B.A., 6, Victoria House, High-road, Goodmayes.

NOTTING HILL.—RECONSTRUCTION.—The L.P.T.B. has placed a contract of £150,000 for the reconstruction of the two railway stations at Notting Hill Gate with Messrs. W. and C. French, Ltd., of Buckhurst Hill. The plans are by the board's chief engineer, Mr. S. A. Heaps, L.R.I.B.A.

OXFORD-STREET.—REBUILDING.—Messrs. G. B. Farrar and Co., 193, Whitechapel-road, E.1, carried out the demolition work at the H.M.V. offices at No. 363. The contract for the rebuilding has been placed with Messrs. Griggs and Son, Ltd., 100, Victoria-street, S.W.1. The architect is Mr. Joseph Emberton, F.R.I.B.A., 136, Regent-street, W.1.

PECKHAM. — REBUILDING. — Messrs. Truman, Hanbury, Buxton and Co., Ltd., Brick-lane, E.1, are to rebuild and enlarge the 'Man of Kent" public-house, Nunhead-lane, S.E. The architects are Messrs. W. G. Ingram, Son and Archer, 4, Verulam-buildings, Gray's Inn, W.C.1, the building contractors being Messrs. H. V. Clogg, Ltd., 159-161, Hanbury-street, E.1.

PINNER.—HOTEL.—Messrs. Whitbread and Co., Ltd., Chiswell-street, E.C.1, have placed a contract with Messrs. H. and D. Bowyer, Mackenzie-street, Slough, for a hotel in Cannon-lane, estimated to cost £17,000. The quantity surveyors are Messrs. Robinson and Roods, 37, Bedford-row, W.C.1.

PUTNEY.—RESIDENCES.—Messrs. W. J. Marston and Son, 1, Stephendale-road, Fulham, are erecting residential chambers on the site of 261, Upper Richmond-road.

ROMFORD.—SCHOOLS.—Preliminary plans have been approved by the Board of Education for the Essex C.C. for a new school at Lodge-lane, Collier-row, to accommodate 1,040 children, and for extensions of the Clockhouse-lane school.

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SANDERSTEAD.—CHURCH.—The Congregational Church Circuit have placed a contract with Messrs. Ekins and Co., Ltd., Great Northern-works, Hertford, for a new church, to cost £11,000. Messrs. Smee and Houchin, FF.R.I.B.A., 22, Essex-street, W.C.2, are the architects.

SOUTHFIELDS.—EXTENSIONS.—Are to be made to the factory, Kimber-road, S.W.18, of the Metropolitan Dyers and Cleaners, Ltd. Plans by Messrs. W. H. Woodroffe and Son, 5, Bedford-row, W.C.1.

SOUTHGATE,—EXTENSIONS.—The B.C. are inviting tenders for extensions to the isolation hospital, Tottenhall-road, N.13. Mr. D. M. Mactavish, B.Sc., A.M.Inst.C.E., Borough Engineer and Surveyor, has prepared the plans.

STRATFORD. — ALTERATIONS. — Including new booking halls, etc., are to be made at Stratford station, for the L.N.E.R. The contract has been placed with Messrs. Wellerman Bros., Ltd., 223, Attercliffe-road, Sheffield. Plans have been prepared under the direction of the company's chief engineer, Mr. R. J. M. Inglis, M.Inst.C.E., King's Cross station, N.W.1.

STREATHAM.—EXTENSIONS.—And alterations are to be made to the factory and offices, Factory-square, S.W.16, of Messrs. P. B. Cow and Co., Ltd. Plans by Messrs. H. Payne Wyatt, Son and Partner, 465, Brixton-road, S.W. No contracts let.

SUDBURY.—HALL.—The Wembley T.C. has resolved that no objection be raised to the proposed erection by the Territorial Army and Air Force Association of headquarters comprising drill-hall, garages, etc., on land forming part of the Express Dairy Farm in Harrow-road and Bridgewater-road.

SUTTON.—EXTENSIONS.—And alterations are to be made to the departmental stores at 247-253, High-street, for the South Suburban Co-operative Society, Ltd., 99, London-road, Croydon. The architects are Messrs. Bethell and Swannell, 16a, John-street, W.C.2.

TAVISTOCK-SQUARE. — EXTENSIONS. — Messrs. Douglas and J. D. Wood, 1, Old Burlington-street, W.1, are the architects for extensions to the premises of the British Medical Association. The building contract has been placed with Messrs. Harry Neal, Ltd., 117, Baker-street, W.1.

VICTORIA. — OFFICES. — The Workers' Travel Association, Ltd., Transport House, Smith-square, S.W.1, has acquired a site at 24-30, Gillingham-street, with frontages to Wilton-road, S.W.1, for new head offices. Plans have been prepared by the association's staff architect.

WALTHAMSTOW. — CLUB. — Gymnasium, concert hall, etc., are to be erected in Penrhyn-crescent, in connection with the Mathews Memorial Methodist Church, at about £7,000. Plans have been prepared by Messrs. George Baines and Son, FF.R.I.B.A., 121, Victoria-street, S.W.1. No contracts placed.

WANDSWORTH. — EXTENSIONS. — Messrs. Fuller, Hall and Foulsham, 212, High Holborn, W.C.1, are the architects for extension to the premises of Messrs. Falk, Stadelmann and Co., Ltd., in Garratt-lane, S.W. No contracts placed.

WEST HAM. — EXTENSIONS.—To provide recreation facilities at Forest House, by the C.B. The plans have been prepared by the Borough Engineer, who estimates the work to cost £3,200.

WEST HAM. — HOUSES. — The C.B. has placed a contract with Messrs. W. J. Jerram, 11, Sandford-road, East Ham, E.6, in place of the previous tender, withdrawn, for the erection of 174 houses and dwellings in Beckton-road (Triangle site), Custom House, E. The tender price is £80,275.

WEST HAM.—WAREHOUSE.—Mr. R. C. Turner Gordon, L.R.I.B.A., 14, Sylvan-road, E.11, is the architect for a new warehouse in Thornton-street at the corner of Edwin-street. Mr. T. Selwood, 658, Barking-road, E.13, is the builder.

WILLESDEN. — EXTENSION. — Messrs. Rotax, Ltd., are to make further extensions to their factory, Chandos-road, N.W.10, for which they have placed a contract with Messrs. Y. J. Lovell and Son, 6, Bathurst-street, Paddington, W.2. The architects are Messrs. S. Clifford Tee and Gale, Moorgate Hall, Moorgate, E.C.2. The quantity surveyors are Messrs. Reynolds and Young, 150, Southampton-row, W.C.1.

THE FIVE-YEAR PLAN

LOCAL AUTHORITIES' SCHEMES.

MANY local authorities have now submitted to the Minister of Health their schemes for expenditure on capital works proposed during the next five years. Following are brief details :—

BARNES.—The T.C. has approved a five-year schedule of public works amounting to £585,302. The schedule includes: Public libraries, museums and art galleries, £3,000; sewerage and sewage disposal, £3,800; wash-houses, £3,500; parks, £1,300; conveniences, £1,000; housing, £146,139; allotments, £1,000; flood prevention, £625; highways and bridges, £297,496; public lighting, £3,804; fire protection and fire-fighting equipment, £1,873; electricity supply, £105,175; transport, £2,174; private street works, £2,269; welfare centres, £10,808; road safety and accident prevention, £1,339.

CLUTTON.—The Rural Council have adopted recommendations that amounts totalling £555,000 for probable capital commitments be included in the five-year programme for water supplies, housing, and sewers and sewage works, etc.

DURHAM.—The C.C.'s £4,000,000 plan includes 55 new senior elementary schools; 67 extensions to existing schools; 128 nursery classes; five new and 14 extensions to secondary schools; seven technical colleges; five school clinics; three juvenile instruction centres and five extensions; and seven district libraries. Sites have been bought and building, starting on most schemes within 12 months, will be finished in five years.

GATESHEAD.—Items of £150,000 for new police buildings, £4,000 for alterations to the municipal buildings, and £49,775 for housing are included in estimates of capital expenditure in the next five years. Other estimates submitted were: P.A.C., £45,600; Baths, Cemeteries and Open Spaces Committee, £106,917; Town Improvement Committee, £742,970; Health and Sanitary Committee, £408,625; Shipley Gallery and Public Libraries Committee, £5,752.

For educational purposes a £500,000 bill includes a new secondary school for girls, £75,000; new R.C. school and reorganisation of All Saints', £33,000; Elgin-road senior school, £69,000; Lobley-hill new school, £63,000.

NEWARK.—The T.C. has formulated a five-year plan estimated to cost £150,000. The principal items are: Education, £66,630; electricity, £32,295; public health, £11,550; waterworks, £19,600; parks, £1,400; highways, £5,500; general purposes, £12,450; gas, £1,500.

NORTHUMBERLAND.—The C.C.'s scheme of £1,100,000 includes plans for 44 new schools and 40 extensions. Main schemes :—New schools: Morpeth (£25,660), Belford (£16,140), Haydon Bridge (£21,996), Tweedmouth (£25,630), East Bedlington (£31,660), Haltwhistle (£22,600), Stannington (£12,000), South Wellfield (£19,000), Ovingham (£24,650), Amble (£28,000), Ashington (£50,000), Cornhill (£13,000), Lynemouth (£27,000), Monkseaton (£11,000), Wooler (£25,000), West Bedlington (£43,000), Cramlington (£18,000), Corbridge (£22,000), Backworth (£12,600), Felton (£14,000), Lowick (£12,000), Bellingham (£15,000), Mickley, Stocksfield (£24,000), Throckley (£53,000), Seaton Burn, Dinnington (£30,500), Holywell (£12,000). Alterations: Whitley High School, £16,000; Berwick High School, £8,000; Ashington Welfare Institute, conversion into junior technical school, £11,850; Hexham Grammar School, £7,200; Blyth, £8,000.

RYDE.—The T.C. have included in their proposals for prospective works the construction of a sea-bathing pool at a cost not exceeding £25,000; the erection of a new pavilion on Western Esplanade and extension of the existing gardens.

SOWERBY BRIDGE.—A programme of prospective works, involving an estimated outlay of £242,280, has been approved by the Urban Council. The major part of the programme is for 600 houses at an estimated cost of £200,000.

SPENBOROUGH.—The Clerk to the Council has drawn up a memorandum in relation to a forecast of capital expenditure amounting to £759,905 during the next five years. The amount is made up as follows: Electricity, £15,535; gas, £41,965; health, £3,600; highways and sewerage, £108,076; slum clearance, £371,979; works and estates, £52,800; general purposes, £62,500; and education, £103,450.

SUNDERLAND.—Many new schools are included in a £43,498 scheme.

THEDWASTRE.—R.D.C. have agreed that their average yearly requirement will be 56 houses for the four years following March 31 next.

THURROCK.—The U.D.C. has approved, as part of its five-year plan for developing the district, the following programme of the Housing Committee :—(1939-40) six bungalows, West Thurrock, £1,300; completion of Grays housing estate, £42,000; rehousing East- and Bond-street clearance area, £6,400; rehousing proposed Dock-road clearance area, £4,000; 16 bungalows, Tilbury, £4,800. (1940-41) Six bungalows, West Thurrock £1,300; 12 houses for clearance area schemes, £4,800; eight bungalows, east end of district, £1,600. (1941-42) 12 houses, clearance areas, £4,800; eight bungalows, eastern area, £1,600; 100 houses, Aveley, £40,000. (1942-43) 12 houses, clearance areas, £4,800; eight bungalows, £1,600.

WATCHET.—The Urban Council have accepted a recommendation by the Harbour Committee to include in their five-year plan £10,000 for extensions and other work. £5,000 has also been suggested for housing.

NEW CINEMAS

ASHINGTON.—Alterations are proposed to the Wallaw cinema for Wallaw Pictures, Ltd. The architects are Messrs. P. L. Browne, Son and Harding, Pearl-buildings, Northumberland-street, Newcastle-on-Tyne. Tenders are being invited.

BLACKPOOL.—Work is to be carried out by direct labour for the erection of a cinema in Church-street, seating 2,800 persons, for the Winter Gardens and Pavilion Co., Ltd., Empress-buildings, Church-street. The architects are Messrs. Derham Mackeith and Partners, Church-street, in collaboration with Mr. K. L. Foster, resident engineer.

DUNOON.—Mr. James Houston, 147, Bath-street, Glasgow, is the architect for a cinema in Argyle-street for Mr. James Hamilton.

HIGHGATE.—Odeon Cinema Holdings, Ltd., 22, Bennett's-hill, Birmingham, have decided to proceed with the erection of a cinema in Junction-road, seating over 2,000 persons. Plans are being prepared by Messrs. T. P. Bennett and Son, F.R.I.B.A., 43, Bloomsbury-square, W.C.1. The quantity surveyors are Messrs. L. A. Francis and Son, Vernon House, Sicilian-avenue, W.C.1.

HOUNSLOW.—Messrs. Selway, Ltd., 14, Parsons-street, Hendon, have under consideration the development of a site in Rosemary-avenue and Manor-avenue by the erection of a cinema, shops, flats, garages, car park, etc., for which plans have been prepared by Mr. H. A. Giddings, M.Inst.R.A., 7, Raymead-road, Barnet. No contracts let.

LEAMINGTON SPA.—Mr. T. Cecil Howitt, F.R.I.B.A., St. Andrew's House, Mansfield-road, Nottingham, has prepared plans for the erection of a Danilo cinema.

MUIRKIRK (AYRSHIRE).—Plans have been prepared by Messrs. Lennox and McMath, 103, Bath-street, Blytheswood, Glasgow, for the erection of a cinema. Messrs. Muir, Lesmahagow, will carry out the building contract.

MURTON.—Messrs. W. and T. R. Milburn, FF.R.I.B.A., 17, Fawcett-street, Sunderland, are the architects for a cinema to be erected in Knaresborough-road for the Knaresborough Theatre Co.

NEW MALDEN.—Work is about to commence upon the building of a cinema in Kingston-road, seating about 1,500 persons. The contract has been placed with Messrs. Lane Fox and Co., Ltd., Dorland House, Lower Regent-street, S.W.1. The plans have been prepared by Mr. Harry Weston, F.I.A.A., 81, Chester-square, S.W.1, in conjunction with Mr. Leslie C. Norton, A.I.A.A., 45, Albemarle-street, W.1.

SOUTHPORT.—Mr. J. G. Wilkinson, 12, Forrest-road, Southport, has secured the contract for alterations to the "Scala" cinema, Kingsway, for Southport Amusements, Ltd. The architect is Mr. George E. Tonge, F.R.I.B.A., National Provincial Bank-chambers, Lord-street.

STOKE-ON-TRENT.—Mr. A. Glyn Sherwin, Rectory Chambers, Newcastle-under-Lyme, is the architect for the proposed cinema in Wellington-road, Bucknall.

CONTRACTS OPEN

For some contracts still open, but not included in this list, see previous issues. Those with an asterisk are advertised in this number. Certain conditions beyond those given in the following information are imposed in some cases, such as that advertisers do not bind themselves to accept the lowest or any tender, that a fair wages clause shall be observed, that no allowance will be made for tenders; and that deposits are returned on receipt of a bona-fide tender, unless stated to the contrary. A dagger (†) denotes closing date for applications for particulars; other dates are those for the submission of tenders; the name and address at the end refer to the person from whom particulars may be obtained. Abbreviations: (A.) for A.R.I.B.A.; B. of E. for Board of Education; B.C. for Borough Council; B.E. for Borough Engineer; B.S. for Borough Surveyor; C. for Clerk; C.B. for County Borough; C.C. for County Council; C.E. for County Engineer; C.S. for County Surveyor; D.S. for District Surveyor; E. for Engineer; E.C. for Education Committee; (F.) for F.R.I.B.A.; (L.) for L.R.I.B.A.; M.W.B. for Metropolitan Water Board; M.H. for Ministry of Health; M.T. for Ministry of Transport; P.C. for Parish Council; R.D.C. for Rural District Council; S. for Surveyor; T.C. for Town Clerk and Town Council; and U.D.C. for Urban District Council.

BUILDING, PAINTING, ELECTRIC LIGHTING, HEATING, &c.

NOVEMBER 23.

Arbroath T.C.—3 new screening chambers, etc., at Danger Point. B.E. Dep. £1.

Blandford R.D.C.—Four three-bedroomed houses, Farnham. E. A. Down, architect, Aldermoors, Ringwood. Dep. £1.

Devon C.C.—Christow council school, alterations to offices; Hemyock council school, additional accommodation; Paignton: Hayes-rd., alterations for staff; junior council school, lavatory accommodation. H. V. de Courcy Hague (F.), County Architect, 97, Heavitree-rd., Exeter.

*__Dover T.C.__—Police station at Ladywell. B.E. and S. Dep. £2 2s.

Down County Regional E.C.—Legacurry P.E. school, Lisburn, repairs and painting; Shinn P.E. school, Ardaragh, Newry, fencing and repairs; Craigavon P.E. school, Gilford, pathway; Edendale P.E. school, Rathfriland, fencing; Ballyvicnacally P.E. school, Dromore, repairs and painting. Education Office, 1, Wellington-pl., Belfast.

East Retford R.D.C.—20 houses at Gringley-on-the-Hill, 6 houses at Sturton-le-Steeple, and 9 houses at Treswell, together with concrete roads, sewers, and sewage-purification plant in certain cases. L. Tattersfield, architect, Amcott House, Grove-st., Retford. Dep. £2 2s.

East Riding C.C.—Alterations to police house at Market Weighton, known as Old Police Station. County Architect. Dep. £1 1s.

Herne Bay U.D.C.—Extension to Council offices. B. J. Wormleighton, E. and S. Dep. £1 1s.

Lindsey C.C.—Extensions to health clinic, Cleethorpes. County Architect, Lincoln. Dep. £1.

Portishead U.D.C.—4 houses at Bristol-rd. H. R. H. White, S. Dep. £1 1s.

Prestwich U.D.C.—Two houses in Town's Yard. H. Kay, E. and S. Dep. £2 2s.

Rochdale C.B.—Internal painting work at electricity works. B.S.

*__Southgate T.C.__—Extensions to Isolation Hospital, Tottenhall-rd., N.13. B.E. and S. Dep. £10 10s.

Watford R.D.C.—Repairs and decorative work to 8 houses, Hyde-ter., Pimlico, and 19 houses, Trowley-rise, Abbot's Langley. E. and S., 25, King-st.

West Riding C.C.—Internal decorations at Barnsley Court House. West Riding Architect, Wakefield.

NOVEMBER 24.

Bolton C.B.—Taking down of brick chimney at electricity substation, Spa-rd. H. E. Annett, Borough Electrical Engineer. Dep. £1 1s.

Bury C.B.—Electrical installation at new technical college. J. G. Potts, Borough Electrical Engineer and Manager, Electricity Dept., Market-st. Dep. £2 2s.

Finsbury B.C.—Interior decoration of (*a*) living-rooms at Grimaldi Houses, Calshot-st, and (*b*) bedrooms at 34-118, Mandeville Houses, Liverpool-rd., N.1. B.E., Town Hall Annexe, Rosebery-av., E.C.1.

Hove T.C.—20 flats, council's housing estate, The Knoll. T. R. Humble, B.S. Dep. £3 3s.

Huddersfield C.B.—Low-pressure heating and domestic hot-water installations at Almondbury grammar school extensions. Education Architect, Education Offices, Peel-st.

*__Kingston-upon-Thames T.C.__—Gymnasium and alterations to Bonner Hill-rd. Girls' School. B.S. Dep. £2 2s.

Leicester T.C.—Alteration and erection of boundary walls, railings, gate piers, etc., in connection with the Groby-rd. widening scheme. A. T. Gooseman, City S. Dep. £1.

London (H.M.O.W.).—Rebuilding of Edmonton County Court. Room 65D, Third Floor Office of Works, S.W.1. Dep. £1.

Northern Ireland.—Automatic telephone exchange and garage at Carrickfergus, County Antrim. Secretary, Ministry of Finance (Room 128), May-st., Belfast. Dep. £1.

*__Sevenoaks U.D.C.__—Extensions to Isolation Hospital, Oak-ln. A. F. Milward. Dep. £2 2s.

NOVEMBER 25.

Brighton C.B.—Electric light and power installations at museum and Art Gallery, Church-st W. N. C. Clinch, engineer and manager, "Electric House," Castle-sq. Dep. £1 1s.

Carlisle T.C.—Heating installation at model lodging-house, Lowther-st. City E., 18, Fisher-st. Dep. £1 1s.

Damastown.—Commissioners of Public Works, school. G. P. Fagan, secretary, Dublin. Dep. £1.

*__Easthampstead R.D.C.__—36 dwellings. Sainsbury & Chamberlain, architects, 154, Friar-st., Reading. Dep. £2 2s.

*__Huddersfield T.C.__—Patent glazing, repairs, etc., to tram shed roof, Longroyd Bridge. T.C.

Huddersfield C.B.—Concreting of car park, Sergeantson-st. Estate Manager, Estate Offices, Railway-st.

King's Lynn T.C.—Washhouse and additions to caretakers' accommodation at infectious diseases hospital, Horsley's Chase. J. C. Matthew, B.E.

Maghull (H.M.O.W.).—Buildings at Moss Side State Institution, Maghull. Room 65D, Third Floor, Office of Works, S.W.1. Dep. £1.

Norfolk C.C.—Internal renovations, King's Lynn poor law institution. County Architect, 25, Thorpe-rd., Norwich.

Southampton C.B.—Additions to Parks Dept. sheds in East Park. B.E. Dep. 10s. 6d.

Southampton C.B.—Close-boarded oak fencing or, alternatively, iron fencing, at Mayfield estate, Woolston, and at vacant land, junction of Castle and Dell-rds., Midanbury. B.E. Dep. 10s. 6d.

NOVEMBER 26.

*__Brighton E.C.__—Special school at East Moulsecoomb. Thos. Simpson & Son, 16, Ship-st. Dep. £3 3s.

*__Dudley T.C.__—Police buildings and fire station. T.C. Dep. £5 5s.

East Kesteven R.D.C.—4 pairs three-bedroom type workmen's dwellings, Kirkby-la-Thorpe. Council's Chartered Architect, Council Offices.

Flintshire C.C.—Domestic subjects centre at Custom House-ln. junior school at Connah's Quay. R. G. Whitley (L.), County Architect and Surveyor, Mold. Dep. £2 2s.

Kettering T.C.—1,450 lin. yds. of straight wrought-iron dwarf fencing, 10 corner posts and 24 hand gates. B.E. and S., 3, Gold-st.

Kirkcaldy T.C.—Redecoration (exterior) of various buildings comprising the Fever Hospital, Kirkcaldy. B.E.

Maesteg.—Wiring for lighting and heating and supply of all electrical materials and fittings, Tabor C.M. Church. Lewis W. Jones, M.I.M. & Cy.E., "Ysgwyn," Neath-rd. Dep. £2 2s.

North Riding C.C.—Extension of existing nurses' home at mental hospital. Ward & Leckenby, architects, 9, Museum-st., York. Dep. £1 1s.

Okehampton R.D.C.—8 houses at Chagford. Sanitary Inspector, 1, Station-rd. Dep. £1 1s.

Ruislip U.D.C.—680 lin. yds of chain-link fencing at New Pond Farm playing fields, West End-rd., Ruislip. E. and S.

Sheffield T.C.—Enclosing open corridors, etc., at the central secondary school, High Storrs. W. Geo. Davies (F.), City Architect. Dep. £2.

Swinton and Pendlebury T.C.—Wrought-iron fencing adjoining town hall site. B.S.

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West Riding C.C.—Construction of burr and fence wall adjoining River Calder on Todmorden and Halifax County road, Hebden Royd. West Riding Surveyor, Wakefield. Dep. £1.

NOVEMBER 28.

Basingstoke T.C.—Transformer station in Darlington-rd. B.S.

Bebington T.C.—24 houses and 14 bungalows at Grove-st., New Ferry. B.E. Dep. £2 2s.

Beckenham T.C.—Renovation and decoration of second-class swimming bath, Beckenham public baths. P. Parr, B.E. and S. Dep. £2.

Brierley Hill U.D.C.—20 houses, together with footpaths, fencing and drainage, on Tack Farm estate, Wordsley. R. H. J. Caomber, E. and S. Dep. £2 2s.

Brighton C.B.—Sub-station building, foundations, etc., at The Ridgeway, Woodingdean. W. N. C. Clinch, engineer and manager, Electric House, Castle-sq. Dep. £1 1s.

*__Bucks Water Board.__—Pump houses at Wendover, Brill and Quainton in Bucks, and Battlesden in Beds. D. Balfour & Sons, engineers, 47, Victoria-st., Westminster, S.W.1. Dep. £5.

*__Durham C.C.__—School in Pelton-ln., Newfield. F. Willey (F.), 34, Old Elvet.

*__Durham C.C.__—Junior school at Waterhouses. F. Willey (F.), 34, Old Elvet.

*__Durham C.C.__—Senior boys' school at Wheatley Hill. F. Willey (F.), 34, Old Elvet.

Eastbourne C.B.—2 houses on Victoria-drive housing site. B.E.

Ellesmere Port U.D.C.—Redecoration of the interior of the library, Carnegie-st. E. and S.

Ellesmere Port U.D.C.—Demolition of an existing house, widening of existing highway by construction of pitched carriageway and tarmacadam surface, flagged pavements, fences, drainage and incidental works at Merseyton-rd. corner. E. and S. Dep. £2 2s.

*__Enfield U.D.C.__—Sports pavilion, café, etc., on playing fields, Cambridge-rd. Frank Lee (L.), 7, Little Park-gdns. Dep. £2 2s.

Leicester T.C.—Stores, messroom, etc., at the Abbey pumping station. A. T. Gooseman, City E. and S. Dep. £2.

London (H.M.O.W.).—Extension of St. Annes-on-Sea post office. Room 65D, Third Floor, Office of Works, S.W.1. Dep. £1.

Margate T.C.—Demolition of various properties in Paradise-st. and the Harbour. W. L. Armstrong, B.E and S., 40, Grosvenor-pl.

Monmouthshire E.C.—Market garden shed and water tower at Institute of Agriculture, Usk. Colin L. Jones (F.), County Hall, Newport, Mon. Dep. £2 2s.

Skelton and Brotton U.D.C.—Garage, Boosbeck. Sanitary Inspector.

*__Stafford C.C.__—School at Kinver, nr. Stourbridge; school at Knypersley, Biddulph. Director of Education. Dep. £5 5s. each.

Swansea C.B.—Demolishing and clearing the sites of number of houses and buildings, etc. Borough Architect. Dep. £1.

**Thurrock U.D.C. — Nurses' home at Isolation Hospital, Stifford Long-la., Grays. E. and S. Dep. £2 2s.

*__Tottenham T.C.__—36 houses, Scotland Green estate; sports pavilion, Markfield Recreation Ground. B.E. Dep. £2 2s. each.

West Riding of Yorkshire C.C.—Senior school and caretaker's house at Mytholmroyd, nr. Halifax. Education Office, Wakefield.

NOVEMBER 29.

**Bridgwater R.D.C. — 36 houses in various parishes. C.

Croydon T.C.—Settling tank, etc., at Warlingham Park hospital. B.E. Dep. £1 1s.

Southampton C.C.—Roadman's cottage at Odiham. A. L. Roberts, County Architect, The Castle, Winchester.

*__West Bromwich T.C.__—Maternity block at Hallam hospital. T.C. Dep. £2 2s.

NOVEMBER 30.

Church U.D.C.—Heating installation at Elmfield Hall, Gatty Memorial Park. S.

Clevedon U.D.C.—Iron and steel projection shelter on sea front. Inon J. Leach, S.

Gateshead.—20 flats and 336 houses at Highfield estate, for North Eastern Housing Association, Ltd. F. H. Patterson, B.S. Dep. £3 3s.

**Hants (H.M.O.W.). — Brockenhurst Telephone Exchange. Room 65D, Third Floor, Office of Works, London, S.W.1. Dep. £1.

Kesteven C.C.—House at Castle Bytham, for headmaster, on Holywell-rd. C. B. Metcalfe (F.), County Offices, Sleaford.

*__Northamptonshire C.C.__—Additions at Daventry public assistance institution. County Architect.

**Somerset (H.M.O.W.). — Keynsham Telephone Exchange. Room 65D, Third Floor, Office of Works, London, S.W.1. Dep. £1.

Uxbridge U.D.C.—Electric wiring in 850 houses. E. T. Bolton, E. and S., 263, High-st.

West Hartlepool C.B.—Installation of low pressure hot water, heating and hot water service apparatus in Dyke House senior elementary school. T. Durkin, B.E. Dep. £5.

DECEMBER 1.

Glasgow T.C.—Erection of St. Philomena's R.C. School, Garngad-rd. Education Offices (Property Department), 129, Bath-st., Glasgow, C.2. Dep. £1 1s.

Shepton Mallet.—Extensions, etc., to Isolation Hospital. Pictor & Snailum (F./A.), Abbey-chambs., Bath. Dep. £2 2s.

Stowmarket U.D.C.—16 bungalows at Ford View-rd. J. Black, S., 17, Station-rd. Dep. £2 2s.

DECEMBER 2.

Chatteris U.D.C.—Open-air swimming pool and necessary buildings in connection therewith in recreation ground, Wenny-rd. Solden Hipwell, S., 19, New-rd. Dep. £2 2s.

DECEMBER 3.

Anglesey E.C.—Additions and alterations to boys' sanitary block at Beaumaris County school. Architects' Department, Glanaber, Llangefni.

Brynmawr U.D.C.—78 houses on Twyncyghordy housing site. S. Dep. £2 2s.

Egham U.D.C.—48 dwellings, Egham Hythe, E. and S. Dep. £2 2s.

***Hampstead T.C.**—Stores building. B.E. Dep. £2.

Irthlingborough U.D.C.—21 non-partlour type three-bedroom houses and 4 parlour type three-bedroom houses, adjoining Addington-rd, E. Turnbull, S. Dep. £2 2s.

Smethwick T.C.—18 houses, Abbey-rd.; 52 maisonettes, Stanhope-rd. B.E. and S. Dep. £2 2s. each.

Southampton C.B.—Four garages at Chapel Wharf. B.E. Dep. £2 2s.

DECEMBER 5.

Banstead U.D.C.—Approximately 265 yds. of wrought-iron fencing, together with ornamental gates, etc., at Woodmansterne recreation ground, Woodmansterne-st., Woodmansterne. S. Dep. £1 1s.

East Ashford R.D.C.—Installing central heating apparatus at 8, Elwick-rd., Ashford. T. H. Wilde, S. 30, Albemarle-rd., Willesborough.

East Ashford R.D.C.—Alterations and additions to 8, Elwick-rd., Ashford, so as to adapt same for use as council offices. T. H. Wilde, S., 30, Albemarle-rd., Willesborough. Dep. £5.

Huddersfield C.B.—Alterations at "Fieldhead" Lindley, into a nursery and erection of 2 blocks of children's homes. Geoffrey Haigh (L.), 10, John William-st. Dep £1 1s.

Llwchwr U.D.C.—40 houses. J. Teifion J. Walliams, architect, West-st., Gorseinon. Dep. £2 2s.

***London (H.M.O.W.).**—Internal Painting at Bush House (South-West Wing, Strand). Room 65D, Third Floor, Office of Works, S.W.1. Dep. £1.

Newcastle-upon-Tyne.—Transit shed at No. 17 berth, Newcastle Quay. City E.

***Northants (H.M.O.W.).**—Oundle Telephone Exchange. Room 65D, Third Floor, Office of Works, London, S.W.1. Dep. £1.

***Warrington.**—Glazing, Sanitary Fittings, Wall and Floor Tiling and Terrazzo and Wood Block Flooring. C., County Mental Hospital, Winwick. Dep. £1 1s. each.

West Riding C.C.—Installation of electric lighting in extensions at Hebden Bridge Grammar School. Education Officer, Wakefield.

West Riding C.C.—Improvements at Midgley Council school and installation of hot-water heating apparatus at Rawmarsh nursery school. Education Officer, Wakefield.

***West Riding of Yorkshire C.C.**—Infants' School at Whitwood Mere, Castleford. Education Officer, Wakefield.

West Riding C.C.—Veranda and improvements at Dearne. Bolton-on-Dearne council school. Education Officer, Wakefield.

***Wimbledon T.C.**—12 flats and extensions to fire station, Queen's-rd. B.E. and S. Dep. £2 2s.

DECEMBER 6.

Consett U.D.C.—72 houses at Pont Head, Leadgate, and roadwork. J. J. Eltringham, Derwent-st., Blackhill. Dep. £2 2s.

Coventry T.C.—School at Stoke. Director of Education. Dep. £1 1s.

***Hayes and Harlington U.D.C.**—Mortuary and other works. E. and S. Dep. £5 5s.

***Heston and Isleworth T.C.**—Infants' school at Berkeley-av. B.S., Council House, Hounslow. Dep. £2 2s.

***London (H.M.O.W.).**—Biddulph Telephone Exchange; Linthwaite Telephone Repeater Station and Pontypridd Employment Exchange. Room 65D, Third Floor, Office of Works, London, S.W.1. Dep. £1 each.

Newton Abbott R.D.C.—22 sheds in 4-in. concrete blocks at Bovey Tracey, Ideford, Broadhempston A. E. Stroud, clerk.

Sligo Corporation.—136 houses at Abbeyquarter (site No. 6) McDonnell & Dixon, (FF.), architects, 20, Ely-pl., Dublin. Dep. £5 5s.

***Watford T.C.**—Community centre on Leavesden Green housing estate. B.E. Dep. £2 2s.

DECEMBER 7.

Carshalton U.D.C.—Wooden Pavilion, Royston Park. E. and S., Stone Court, The Grove. Dep. £2 2s.

***Kempston (H.M.O.W.).**—Extension to Telephone Exchange. Room 65D, Third Floor, Office of Works, London, S.W.1. Dep. £1.

Peterborough T.C.—Works in connection with Cattle Market. City E.

DECEMBER 8.

***Leicester (H.M.O.W.).**—Earl of Shilton Telephone Exchange. Room 65D, Third Floor, Office of Works, London, S.W.1. Dep. £1.

Manchester E.C.—W.I. railings and gates required at Whalley Range Municipal High School for Girls. Surveyor's Department, Education Offices.

Manchester E.C. — Old Hall-drive municipal senior school, and additions, etc., to existing school. S. Dep. £2 2s.

Salisbury T.C.—12 dwellings at West Harnham. S. R. Little, Council House, Bourne Hill. Dep. £5.

***Wembley T.C.**—Panelling and Council Chamber Seating in new Municipal Buildings, Forty-ln. T.C. Dep. £1 1s.

DECEMBER 9.

***Hinckley (H.M.O.W.).**—Employment Exchange Room 65D, Third Floor, Office of Works, London, S.W.1. Dep. £1.

***Portsmouth T.C.**—135 flats, Church Path North. Adrien J. Sharp (L.). Dep. £3 3s.

***Wrexham E.C.**—Additions, etc., to Acton-pk. schools. B.S., 1, Grosvenor-rd. Dep. £2 2s.

DECEMBER 10.

Hereford T.C.—Sectional framed building. City S.

***Nottinghamshire C.C.**—County Hall and Offices at Trent Bridge. C. Dep. 25 guineas.

***Southend-on-Sea T.C.**—5 cottages for aged persons at Gainsborough-dr. B.E. Dep. £1.

West Riding E.C.—Additional offices at Grimethorpe (Girls') Council School. C. L. Crossley, 8, St. John's North, Wakefield.

DECEMBER 12.

***Beaminster R.D.C.**—6 houses with paths and fencing at Melplash. C. Dep. £1 1s.

***Dunstable T.C.**—3 cottages on Watling-st. W. F. Wilkins, B. Architect. Dep. £2 2s.

***West Riding of Yorkshire C.C.**—Senior School and Technical Institute, etc., at Bingley, nr. Bradford. Education Officer, Wakefield.

DECEMBER 13.

***Stafford C.C.**—School at Rutterton, nr. Leek. Director of Education. Dep. £3 3s.

DECEMBER 15.

Norwich T.C.—Technical College of Art and Crafts at Ipswich-rd. City Architect. Dep. £5 5s.

South Shields C.B.—Infectious Diseases Hospital at Sunniside-ln., Cleadon. John Reid, B.E. Dep. £5 5s.

DECEMBER 17.

Doncaster and Mexborough Joint Hospital Board.—Extensions to Isolation Hospital, Crookhill-rd., Conisbrough. Roy Bowers, clerk, Nether Hall, Doncaster. Dep. £2 2s.

DECEMBER 19.

Durham C.C.—Secondary school at Crossgate Moor. F. Willey (F.), 34, Old Elvet, Durham.

DECEMBER 29.

***Somerset.**—Two hard tennis courts and pair of cottages at Somerset and Bath Joint Mental Hospital. C. Cotford, nr. Taunton. Dep. £1 1s. for cottages.

NO DATE.

North Bucks Joint Hospital Board.—Internal decorating to matrons' house, Grove Isolation Hospital, Linslade. H. A. Rolls, chartered architect, 15, Bridge-st., Leighton Buzzard.

MATERIALS, &c.

The materials for which tenders are invited normally include one or several of the following :—asphalt, bricks, brooms, building lime, cast-iron pipes, cement, concrete, kerbs, etc., concrete tubes, drain pipes, glazed stoneware pipes, granite chippings, granite kerbs, gravel, gulleys, lime, manhole covers, painters' materials, plumbers, materials, road stone, slates, stoneware pipes, sand, stone, tar, tarslag and bituminous macadam, timber, and whinstone screenings. Readers should obtain full particulars by personal inquiry.

NOVEMBER 23.

Dagenham T.C.—Steel stove enamelled cubicles, metal casements and frames in wood surrounds for swimming bath, The Leys. F. C. Lloyd, B. E. and S. Dep. £2 2s.

NOVEMBER 24.

Clevedon U.D.C.—I. J. Leach, S.

Frome U.D.C. S.

Taunton R.D.C. District S., Mary-st. House, Taunton.

Wells R.D.C.—District S., 27, High-st.

NOVEMBER 25.

Belfast City and District Water Commissioners.—W. I. Quinn, secretary.

Walthamstow T.C.—Granite chippings. G. A. Morrow, buyer to Council.

NOVEMBER 26.

East Sussex C.C.—H. E. Lunn, C.S., Lewes.

Tyrone C.C.—B. G. L. Glasgow, C.S., Omagh.

Warrington C.B.—Sanitary fittings at new Boteler Grammar school, Latchford. J. Y. Hughes, B.E. and S.

West Sussex C.C.—C.S., Chichester.

Yeovil T.C.—A. J. Price, B.S.

NOVEMBER 28.

Dartford T.C.—J. J. Hartley, T.C.

Minehead U.D.C.—A. G. Mansfield, C.

Sheerness U.D.C.—C. C. Judson, E. and S.

***Yeovil T.C.**—School furniture. T.C.

DECEMBER 1.

Monmouthshire C.C.—S. A. Bennett, C.S., Newport (Mon).

DECEMBER 3.

Keysham U.D.C.—S.

Wilts C.C.—H. S. Ganderton, C.S., Trowbridge.

DECEMBER 5.

Dorset C.C.—C.S., Dorchester.

South Africa (South African Railways and Harbours Administration).—Steel wire ropes. Dept. of Overseas Trade, S.W.1.

DECEMBER 8.

South Africa (South African Railways and Harbours Administration).—86 rolled steel beams. Dept. of Overseas Trade, S.W.1.

DECEMBER 21.

***Birmingham T.C.**—Bookshelving desks, etc., at Central Libraries, Ratcliff-pl. City Librarian. Dep. £2 2s.

JANUARY 2.

Cawnpore Municipal Board. — Sluice valves, hydrants and standpipes for water supply improvement scheme, contract No. 11. Williams, Temple & Bartholomew, consulting engineers, 28, Victoria-st., Westminster, S.W.1.

ENGINEERING, IRON AND STEEL.

NOVEMBER 23.

Frinton and Walton U.D.C.—Timber groyne at Battery Point, Frinton-on-Sea. H. W. Holmes, E. and S. Dep. £1 1s.

Margate T.C.—Steelwork, roofing, etc., in steel-framed garage at Manston-rd. W. L. Armstrong, B.E., 40, Grosvenor-pl.

NOVEMBER 24.

Bury C.B.—Culverting of Walshaw Brook. J. Chadwick, A.M.I.C.E., B.E. and S., Bank-st. Dep. £1.

Melford R.D.C.—For regional water schemes, south-eastern area. Sands & Walker, consulting engineers, Milton-chambs., Nottingham. Dep. £3 3s.

NOVEMBER 25.

Roscommon Board of Health.—Sewerage system in town of Castlerea. H. G. O'Connor, consulting engineer, 4, St. Francis-st., Galway. Dep. £5 5s.

NOVEMBER 26.

Alford Drainage Board.—Concrete sea walls and aprons in urban district of Mablethorpe and parish of Huttoft. E. W. A. Price, E. 9c, Market-pl., Alford. Dep. £1 1s.

Alnwick R.D.C.—Sewerage for parish of Shilbottle. O. M. Farrell, S., Old Court-bldgs., 34, Green Batt. Dep. £2 2s.

Camelford R.D.C.—Laying of new sewers, connecting to existing, and construction of new outfall works at Delabole and St. Teath. Andrew & Randell, engineers, St. Austell. Dep. £2 2s.

Egyptian Government.—Water pipe lines and accessories for Bosat drinking water installation, Dakahlia Province, with auxiliary work. Chief Inspecting Engineer, Egyptian Government, 41, Tothill-st., London, S.W.1. Charge £5 2s. 6d.

Grimsby C.B.—Second section of Grant Thorold sewerage scheme. J. V. Oldfield, B.E. and S. Dep. £10.

Morecambe and Heysham T.C.—Sewerage contracts Nos. 2, 3 and 5. A. H. S. Waters, E., 25, Temple-row, Birmingham. Dep. £5 5s.

Portsmouth T.C.—Stamshaw flood relief scheme (Contract No. 4). City E. Dep. £3 3s.

Taunton R.D.C.—For Bishops Lydeard sewerage scheme. A. P. I. Cotterell & Son, chartered civil engineers, 54, Victoria-st., London, S.W.1. Dep. £3 3s.

NOVEMBER 28.

Clevedon U.D.C.—Clearing bottom and concreting portion of Marine Lake. I. J. Leach, S.

London C.C.—Bridge over West London Extension Railway and District Line of L.P.T.B., with approaches to form new road from Warwick-rd. to North End-rd. Chief E. (C.), County Hall, Westminster Bridge, S.E. Dep. £15.

Nottinghamshire C.C.—Construction of two new bridges and demolition of two existing masonry bridges at Oldcotes on Worksop-Balby-rd. C.S., Nottingham. Dep. £5.

Wolverhampton Corporation.—20 tons of structural steelwork in construction of two new floors in existing buildings, and demolition of some existing girders and concrete, at Cosford waterworks, nr. Shifnal. Water Engineer and Manager, Town Hall. Dep. £2.

NOVEMBER 30.

Ayr C.C.—For Garnock Valley drainage. J. B. Brodie, consulting engineer, 141, West George-st., Glasgow.

Durham R.D.C.—For Aldin Grange sewerage. Taylor & Wallin, engineers, 1, Saville-pl., Newcastle-on-Tyne, 1. Dep. £5.

Hartlemere R.D.C.—3,700 yds. of 9 in. and 6 in. sewers and appurtenant works, construction of sewage disposal works, at Laxfield. W. Herbert Bateman, E., St. Michael's-chambs, St. Andrew-st., Norwich. Dep. £2 2s.

Lancashire C.C.—Widening and reconstruction of boundary (county) bridge on Southport-Ormskirk-rd., over Boundary brook, Scarisbrick, Southport. County Surveyor and Bridgemaster, County Offices, Preston. Dep. £2.

Lincoln T.C.—Reconstruction of Magpies Bridge over River Witham. City E. and S. Dep. £2.

South African Railways and Harbour Administration.—Structural steelwork, including columns, crane girders, sheeting rails, etc., required for an extension to timber store at Uitenhage. Department of Overseas Trade, S.W.1.

South Cambridgeshire R.D.C.—Western area water scheme, contract No. 7, service connections. Sands & Walker, consulting engineers, Milton-chambs., Milton-st., Nottingham.

DECEMBER 3.

Leicester T.C.—Sewage disposal works extensions (Contract No. 4). A. T. Gooseman, City E. and S. Dep. £2.

Tredegar U.D.C.—Flood prevention schemes. W. A. Evans, consulting engineer, 86, Claude-rd., Cardiff. Dep. £5.

DECEMBER 6.

Colchester T.C.—Driving of approximately 100 tons of steel sheet piling, excavating and carting 5,500 cu. yds. of river bank, and other works incidental thereto, at River Colne. H. Collins, Borough Engineer and Harbour Engineer. Dep £3 3s.

DECEMBER 7.

Lancashire C.C.—New road, from Liverpool-East Lancashire trunk road, at Windle Smithies to Four Lane Ends, Bickerstaffe, including construction of new potteries bridge, and new Rainford bridge. P. Schofield, County Surveyor and Bridgemaster, Preston. Dep. £5 5s.

Staffordshire C.C.—Reconstruction of Rodbaston railway bridge, near Gailey, on Wolverhampton-Stafford-rd. C. S. Stafford. Dep. £5.

DECEMBER 8.

Ruabon.—Steelwork for reconstruction and widening of Wrexham-rd. bridge, for G.W.R. Engineer, Paddington Station, London, W.2. Dep. £2 2s.

DECEMBER 9.

Belfast City and District Water Commissioners.—Filter-house and covered reservoirs. W. I. Quinn, secretary. Dep. £5 5s.

DECEMBER 10.

Calne and Chippenham R.D.C.—Elevated reinforced concrete water tower. Parker Pearson & Ross Hooper, engineers, Dallas-chambs., Chippenham. Dep. £1.

Morecambe and Heysham T.C.—Sea defence works and promenades, on Marine-rd. West. B.S. Dep. £5 5s.

DECEMBER 12.

Worcester T.C.—Two overflow weirs and drains at Blockhouse and Sidbury locks on Worcester and Birmingham Canal. City E., 22, Bridge-st. Dep. £2 2s.

DECEMBER 15.

Egyptian Government.—Water towers for Bosat waterworks installation, Daqahlia Province, with all necessary accessories and auxiliary work. Chief Inspecting Engineer, 41, Tothill-st., S.W.1. Charge £3 1s. 6d.

DECEMBER 20.

Bristol Port Authority.—Extension of eastern arm, Royal Edward Dock, Avonmouth. W. P. Wordsworth, Chief E., Avonmouth Docks. Dep. £10.

Cawnpore Municipal Board.—Water supply improvement scheme. Williams, Temple & Bartholomew, consulting engineers, 28, Victoria-st., Westminster, S.W.1.

JANUARY 16, 1939.

Egyptian Government.—Water towers for Fayoum water works installation. Chief Inspecting Engineer, Egyptian Government, 41, Tothill-st S.W.1. Charge £3 1s. 6d.

MARCH 14.

Australia (State Electricity Commission of Victoria).—Boiler house plant and steel buildings for Newport "C" Power Station, including water tube boilers, pipework, coal and ash handling plants and steel chimneys, boiler house and tank house buildings. Dept. of Overseas Trade, S.W.1.

ROAD, SEWERAGE AND WATER WORKS.

NOVEMBER 23.

Barnet U.D.C.—Making-up Laurel-way and Southway, S.

Carlisle T.C.—Construction of Back Greystone-rd. (part) and Back Warwick-rd. (part). City Engineer, 18, Fisher-st. Dep. £1 1s.

Coulsdon and Purley U.D.C.—Reconstruction of Coulsdon-rd. between Placehouse-ln. and Coulsdon Common. S. Dep. £3 3s.

Freebridge Lynn R.D.C.—Laying water mains, parish of North Wootton. G. W. Little, water inspector, St. James' Clubhouse-bldgs., King's Lynn.

Hull Corporation.—Reconstruction of Backroad between 630 and 632, Hessle-rd., and at rear of 632-636, Hessle-rd., 1 to 5, Carlton-st. and Whiskers-bldgs., Carlton-st. City E. Dep. £2.

Penicuik T.C.—6-in. water mains from Silverburn to Penicuik. Hunter, Duff & Middleton, engineers, 42, Frederick-st., Edinburgh. Dep. £2.

Southport C.B.—Roughening by heating of approximately 7,300 super. yds. of mastic asphalt paving in Old Park-ln. B.E.

NOVEMBER 25.

Antrim C.C.—Surface spraying with tar. A Millar, secretary, County Courthouse, Belfast.

***Easthampstead R.D.C.**—New road, surface water sewer, etc., at Chavey Down, nr. Bracknell. Sainsbury & Chamberlain, 154, Friar-st., Reading. Dep. £2 2s

Liverpool Corporation.—Laying of about one-third of a mile of 42 in. internal dia. steel pipes and other ancillary works at Prescot reservoirs. Water Engineer's Office, 55, Dale-st., Liverpool, 2. Dep. £5 5s.

Poole T.C.—Making-up of Springfield-cres., Danecourt-rd. (part), Church-rd. (part) and St. Peters-rd (part). E. J. Goodacre, B.E. and S. Dep. £2 2s.

NOVEMBER 26.

Breconshire C.C.—Reconstruction of section of Llanwrtyd Wells-Llandovery-rd. between Erwbeili and Bylchau Farms. J. M. Richards, C.S., Watton, Brecon. Dep. £10.

Harrogate T.C.—Making-up Almsford-av. to eastern boundary of No. 22. L. H. Clarke, B.E. and S.

Penistone U.D.C.—Widening of Royd Moor-rd., Thurlstone, nr. Sheffield. Lunn, Heppenstall & Lunn, architects and surveyors, Milnsbridge, Huddersfield. Dep. £2.

NOVEMBER 28.

Altrincham T.C.—Making-up of St. James's-gr., Hampton-gr., Buckingham-gr., Balmoral-dr., Kensington-gr. and Windsor-dr. H. E. Brown, B.S. Dep. £2 2s.

Bacup T.C.—Making-up Cutler-ln. and Acre-av. H. Guffogg, B. and Water E. Dep. £1 1s.

Beddington and Wallington T.C.—Making-up of Lavington-rd. S. F. R. Carter, B.E. and S. Dep. £1 1s.

Bognor Regis U.D.C.—Making-up various streets. E. and S. Dep. £2 2s.

Bognor Regis U.D.C.—Laying of foul-water sewers in Aigburth-av., Parkfield-av., Sefton-av. and Robins-dr. E. and S. Dep. £2 2s.

Bromley T.C.—Improvement in part of Farnaby-rd Harold Cliffe, B.E. Dep. £1.

Ellesmere Port U.D.C.—Improvement, Merseyton-rd. corner. E. and S. Dep. £2 2s.

Honiton T.C.—Laying of 290 ft. of 9-in. glazed stoneware pipe sewer with manhole. J. W. Jones, B.S. Dep. £1 1s.

Malden and Coombe B.C.—Construction and maintenance of Woodside-rd. (part), Carlton-rd., Selborne-rd., Southwood-av. and Coombe-rise. A. R. Goldthrop, B.E.

Southall T.C.—Laying about 3½ miles of deep sewer, mostly 21 in., 24 in. and 30 in. in diameter, with all necessary manholes, ventilating shafts, etc. Arthur J. Martin, E., 106, St. George's-sq., Westminster, S.W.1. Dep. £3 3s.

Stafford T.C.—Making-up Bridle-rd., off Cannock-rd. W. Plant, M.Inst.C.E., B.E. Dep. £1 1s.

Wanstead and Woodford T.C.—Reconstruction and improvement of Snakes-ln. (lower). Armand D. Ward, B.E. and S. Dep. £2 2s.

Wembley T.C.—Making-up of Church-dr., Kingsbury. B. Treasurer, 117a, High-rd. Dep. £1 1s.

NOVEMBER 29.

Hoddesdon U.D.C.—Sewer, Ware-rd., Hailey. S. Dep. £1 1s.

NOVEMBER 30.

Lewisham B.C.—Paving and forming roadway and footways of Algiers-rd. (part of). B.E. and S.

Luton T.C.—Construction of Dunstable-cl., Dunstable Close-passage, St. Luke's-cl. and Leicester-rd. J. W. Tomlinson, B.E. and S. Dep. £2 2s. each road.

Reigate T.C.—Reconditioning of certain lengths of existing egg-shaped brick sewers in Borough. G. B. Kershaw & Kaufman, chartered civil engineers, 9, Victoria-st., S.W.1. Dep. £10.

DECEMBER 1.

Carmarthen C.C.—7,100 super. yds. bituminous macadam base coat on Carmarthen-Whitland Trunk-rd. T. W. Wishlade, C.S., Carmarthen.

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15, North Audley Street, London, W.1.

Greenwich B.C.—Forming and paving of Langton-way, extending from Delacourt-rd. to Vanbrugh-ter. B.E. and S.

London (City Corporation).—Reconstruction of 580 ft. of brick sewer beneath Threadneedle-st. and construction of 120 ft. of brick sewer beneath Bartholomew-ln., and contingent works. E., Guildhall, E.C.2. Dep. £2 2s.

DECEMBER 3.

Bexhill T.C.—Making-up Chantry-av. and Arthur-rd. (part). Acting B.S. Dep. £1 1s.

Bridgnorth T.C.—Laying of approximately 1,000 yds. of 3-in. cast-iron water main in parish of Quatford. B.S. Dep. £2 2s.

Portsmouth T.C.—Making-up Marina-gr., Wallisdean-av., Lakeside-av., Cedar-gr., Jenkins-gr., Ebery-gr., Hilldowns-av. City E. Dep. £2 2s.

DECEMBER 5.

Clitheroe R.D.C.—Laying of approx. 400 yds. of 6-in. surface-water drain (with the necessary road gullies, grates, etc.) and forming of approx. 310 yds. of tarmacadam footpath and kerbing in Back-ln., Chatburn. W. G. Booth, S.

Pembrokeshire C.C.—Road-widening scheme from Trecwn village to Rectory cross-roads. C.S., Willesden House, Haverfordwest. Dep. £5 5s.

Thurrock U.D.C.—Making-up of Medina-rd., Little Thurrock. G. F. Andrassy, E. and S., Grays. Dep. £1 1s.

DECEMBER 6.

Carmarthenshire C.C.—Proposed road improvements at Cwmffrwd corner, Tredegar farm, Llwynycwcw, on Carmarthen-Llanelly-rd. T. W. Wishlade, C.S., Carmarthen. Dep. £5.

DECEMBER 7.

Llanelly T.C.—Street improvement works in Stebonheath-ter., Greenway-st., Greenway-st., South Back-st., Salem-rd. (part of). B.E. Dep. £2.

DECEMBER 31.

Devon C.C.—Construction of Totnes by-pass, westerly extensions. Andrew Warren, C.S., 18, Cathedral-cl., Exeter. Dep. £5 5s.

Public Appointments.

NOVEMBER 21.

Hayes and Harlington U.D.C.—Architectural Assistant and Engineering Assistant. E. and S., Hayes, Middlesex.

Norwich T.C.—Architectural Assistant (Temp.). City Architect.

Portsmouth T.C.—Senior Assistant. City Architect.

Rochester T.C.—Clerk of Works. Secretary.

St. Helens T.C.—Architectural Assistant. B. and Water E.

NOVEMBER 22.

Leamington Spa T.C.—General Engineering Assistant. B.E.

NOVEMBER 23.

Bournemouth T.C. — Architectural Assistant (Temp.). B.E.

***Durham C.C.**—Architectural Assistant, Assistant Clerk of Works. F. Willey (F.), 34, Old Elvet.

Somerset C.C.—Assistant Quantity Surveyor (Temp.). R. O. Harris (A.), County Architect, Taunton.

NOVEMBER 25.

***Clacton U.D.C.**—Architectural Assistant. S.

***East Ham T.C.**—Junior Architectural Assistant (Temp.). B.E.

NOVEMBER 26.

***Sheffield T.C.**—Manager for Public Works Department. T.C.

NOVEMBER 28.

***Croydon T.C.**—Draughtsman (Temp.). T.C.

NOVEMBER 29.

***Leamington Spa T.C.**—General Engineering Assistant. B.E.

***Lowestoft T.C.**—Building Inspector. T.C.

NOVEMBER 30.

***Bexley T.C.**—Two Architectural Assistants and one General Engineering Assistant (Temp.). B.E. and S.

***Esher U.D.C.**—Junior Assistant. H. C. Fread (F.).

***Heston and Isleworth T.C.**—Building Maintenance Foreman. B.S., Hounslow.

DECEMBER 2.

***Exeter T.C.**—Architectural Assistant (Temp.) John Bennett (F.), City Architect.

Leeds T.C. — Senior Architectural Assistant, R. A. H. Livett (A.), Director of Housing, 26, Gt. George-st.

***Leeds T.C.**—Quantity Surveyor's Assistant (Temp.). R. A. H. Livett (A.), Director of Housing.

DECEMBER 7.

Gloucester E.C.—Clerk of Works. Education Officer.

NO DATE.

***Chester.**—Draughtsman (Temp.). Command Land Agent, Western Command, Queen's Park.

***Dover.**—Clerk of Works. D.C.R.E., R.E. Headquarters, Archcliffe.

***Durham C.C.**—Assistant Architect and Architectural Assistants. F. Willey (F.), 34, Old Elvet.

***London County Council.**—Building Surveyor. C., County Hall, Westminster Bridge, S.E.1.

***London.**—Quantity Surveyors. Under-Secretary of State, Air Ministry (W.9), Adastral House, W.C.2.

***London.**—Architectural and Engineering Assistants. Under-Secretary of State, Air Ministry (W.9), Adastral House, Kingsway, W.C.2.

***London.**—Assistant Quantity Surveyors (Temp.) Civil Engineer-in-Chief, Admiralty, S.W.1.

CURRENT AND PROPOSED BUILDING WORK*

The Editor welcomes authentic information for this feature from architects, surveyors or contractors. Where business representatives cannot be seen personally at this stage, this should be mentioned. Items should reach 4, Catherine-street, Aldwych, W.C.2, not later than Wednesday morning.

Aberdare.—Co-operative Wholesale Society, Ltd., proposing dairy at Trecynon.

Altrincham.—John Cocker, architect, 7, Market-st., preparing plans for client for approximately 300 houses off Park-rd. and The Triangle, Timperley.

Aylesbury.—T.C. approved:—Alterations to form two shops and stores over High-st. Congregational School, Wigram Family Settled Estates.

Belfast.—A £54,495 scheme for improvement of Peter's Hill Baths been approved by Baths and Lodging-house Committee of Corporation.

Birmingham.—J. A. Harper & Sons, Union-chams., Temple-row, architects for extensions to works, Warwick-rd., for Serck Radiators, Ltd.

Bishops Stortford.—U.D.C. approved:—Alterations, additions and garages, "Three Tuns" p.h., London-rd., Rayment & Co., Ltd.

Bournemouth. — T.C. approved:—11 shops and flats, Hillview-rd., Davis Estates, Ltd.

Bradford.—Hammond's Bradford Brewery Co., Ltd., Fountain Brewery, Manchester-rd., proposing to rebuild "Hare and Hounds" hotel, Toller-la. Architects, H. Marsh, F.I.S.A., 14, King-st., King's Lynn.

Brighton.—Tamplin & Sons' Brewery (Brighton), Ltd., 1, Richmond-ter., propose to rebuild "Norfolk Arms" p.h., Grand-parade. Plans by Clayton & Black, 10, Prince Albert-rd.—Reconstruction of 32-34, Russell-sq., for Tamplin & Sons' Brewery (Brighton), Ltd., proposed. Plans by staff architect, A. B. Packman, 1, Phœnix-pl.

Caerphilly.—Morgan & Thomas, Pentre, Rhondda Valley, architects for Presbyterian Church, for Glamorgan Forward Movement.

Clutton.—M.H. given sanction to R.D.C. to invite tenders for 50 houses at Tennis Court-ln., Paulton.

Crook.—Plans prepared by J. H. Morton & Son (F.), architects, South Shields, for remodelling and enlarging of Hippodrome building and new large waiting-rooms and lounges. Existing accommodation for some 1,500 has been increased, and enlargement provides area for some 300 additional chairs.

Darlington.—T.C. approved:—R. Blackett & Son, for Darlington Rolling Mills Athletic and Welfare Centre, extension to club house, Longfield-rd.

Darlington.—Tenders being obtained for residential hotel, for Edlinton Hotels, Ltd. Architect, Edwin M. Lawson, Barras-bldgs., Barras Bridge, Newcastle-on-Tyne.

Doncaster.—Wilburn & Atkinson, 11, South-parade, preparing plans for airport hotel.

Dover.—T.C. approved: Elms Vale Estate Co., 24 houses, Reading-rd.

Dublin.—Corporation approved:—East Wall-rd., extension to factory—Messrs. Masser; Cornmarket, alterations to Webb's premises—General Estates Trust Co.; Crumlin-rd., factory—Moracrete, Ltd.; Belton Park estate, 26 houses—P. Belton.

Easington Colliery.—Premises proposed by British Legion. Architect, H. G. Clarke, Sunderland-rd., Horden, Co. Durham.

Essex.—C.C. recommended proposal of Hertfordshire C.C. to bring accommodation of Herts and Essex High School, Bishops Stortford, up to two-form entry requirements, at £18,941 8s. 9d.; gymnasium, dining-room, common-room, etc., at the North-East Essex Technical College and School of Art, Colchester, at £9,597; fuel store and salt store, Braintree institution, £414; installation of low-pressure hot water heating apparatus in infirmary and T.B. pavilions, Stanway institution, £333; temporary dining accommodation, Mid-Essex Technical College and School of Art, £331; adaptation of temporary building to provide accommodation for partially sighted children and for speech clinic purposes, etc., Dagenham Five Elms Council school, £768; wooden building at Laindon St. Nicholas-la. council junior school, to provide a dining hall, kitchen accommodation, etc., at £752; sectional wooden building, at £600, for use as dining hall, kitchen, etc., at Canvey Island Long-rd. council junior school.

Fleet.—U.D.C. approved:—Block of 8 shops, flats and garages, Fleet-rd., F. H. Dyer.

Gateshead.—Team Valley Trading Estate Co., in conjunction with National Fitness Council, proposes £100,000 recreation centre on Team Valley estate.—20 flats and 336 houses to be built by North-Eastern Housing Association, Ltd., Metrovick House, Newcastle-on-Tyne. Plans by F. H. Patterson, B.E., Town Hall, Gateshead.

Gosforth.—Arrol & Co., Ltd., brewers, Newcastle, intend to build modern hotel at Fawdon. C. S. Errington, 46, Granger-st., Newcastle-on-Tyne, architect.

Headington (Oxon).—Plans already prepared for additions to Wingfield-Morris Orthopaedic Hospital. Approximate cost £7,000.

Ilford.—T.C. approved:—R. Bass, 20 houses and garages, St. Clair-rd.; London Co-operative Society, Ltd., extensions, 70, Cranbrook-rd.; R. J. L. Slater (L.), rebuilding of facade, Pioneer Market, Ilford-la.

Limerick.—Corporation to proceed with Kileely housing scheme, under which 368 houses are to be erected. Plans are in preparation for building 620 on Prospect area.

London.—L.C.C. recommended borrowing by Hammersmith B.C. of £13,150 for depot and air raid shelter in Milsom-rd., and £70,000 for Becklow-pl. housing.—C.C. recommend £900 for improvements to balconies, etc., at patients' block at High Wood hospital, Brentwood; £450 for additional maintenance grant to governing body in respect of extension to premises of Convent of the Sacred Heart High school, Hammersmith; £31,000 for additional purification plant at Northern outfall works.

London (City).—Corporation recommend authority to sell Billingsgate and Leadenhall Markets Committee, for purposes of Billingsgate Market Extension scheme, portion of Nicholson's wharf, Lower Thames-st., for £6,240; and repairs to be carried out to Dam and Sluices of the Dock and one of Barge Berths at Cleansing Depôt at Lett's Wharf, at £155. Plans passed:—75, Cannon-st., and 1, 2 and 3, Tower Royal, rebuilding.

London (M.W.B.).—Board recommend internal cleaning and repairing of walls of east reservoir at Campden Hill at £250.

Manchester.—Plans approved by T.C.:—458 houses and 124 flats, Crossacres-rd., Peel Hall-rd., Brownley-rd., Woodhouse-la., etc., Northern Etchells, Housing Committee; 34 houses, Arcadia-av. and St. Ives-cres., Baguley, Hillingdon Estates, Ltd., architects, Swannell & Sly, High-st., Rickmansworth; workshop, "Beswick House," Rowland-st., Beswick, E. Bennion & Sons, 20-22, Mitchell-st., Ancoats.

Market Bosworth.—R.D.C. approved:—Reconstruction of "Fox Inn," Higham-on-the-Hill, for J. Eadie, Ltd.

Market Harborough U.D.C.—Extension to factory, Church Gate and Factory-ln., R. & W. H. Symington & Co., Ltd.

Ormskirk. — H Cox McCulloch, architect, 629, Kingsway, preparing plans for 49 houses, Iddon-rd. and Hutton-rd., Skelmersdale.

Oxford.—Senate of University of Oxford approved plans for extensions to Worcester College. Architects are W. G. Newton & Partners, 4, Raymond-bldgs., Gray's Inn, London, W.C.1.

Plymouth.—City Council proposes to accept tenders amounting to £121,347 for plant and erection of buildings in scheme for extensions to Prince Rock Generating Station.

Richmond (Yorks). — Plans being prepared by W. A. Kellett (L.), 8, Lendal, York, for Methodist church, Queen's-rd., at £5,000.

Sheffield. — Plans approved by T.C.:—Machine shop extension to works, Hawke-st., English Steel Corporation, Ltd., Vickers Works; sale shops, offices, workshop and stores, Bridge-st., W. & T. Avery, Ltd., Soho Foundry, Smethwick, Birmingham; licensed premises and house, Boundary-rd. and Southend-rd., Duncan, Gilmour & Co., Ltd., Dixon-la.; boot and shoe repairing factory, Archer-rd., Sheffield & Ecclesall Co-operative Society, Ltd., Ecclesall-rd.; additions and alterations to club headquarters, Hatfield House-la., Sheffield-la. Working Men's Club, Ltd., Building Committee; church, Bellhouse-rd., Sheffield Diocesan Trust and Board of Finance; development of land for houses and shops, Mansfield-rd. and Holly Bank-rd., A. E. Clayton; 27, Abbeydale Park-cres.; 22 houses and garages, Norton Park-view and Norton Park-cres., A. G. Redmile, 95, Cobnar-rd.; 66 houses, Foxwood-av., Foxwood-gr. and Foxwood-rd., Hallewell Estates, Ltd., Foxwood Estates; development of land, Carterknowle-rd. and Button Hill, architects, Fowler & Marshall, 3, Hartshead; 102 houses, Woodhouse estate, Estates Committee; 240 houses (Scheme 17), Parson Cross estate, for Estates Committee.—Board of Queen Victoria Nursing Association propose nurses' home in Southey Hill, Longley estate.—Shukers of Sheffield, Ltd., Commercial Vehicles, 58, Broad-st., acquired land from Corporation in Aston-st. for new works.—Howard-st. Club, Howard-st., propose new headquarters in Charles-st.

South Elmsall.—Mission church costing £5,500 to be built by Vicar of South Elmsall, Rev. H. Milner, at Moorthorpe.

Southend.—T.C. approved:—25 bungalows, Vardon-dr., A. J. Wells.

Spennymoor.—Hardy & Co., Clayton-st., Newcastle-on-Tyne, to erect shops and showrooms at Cheapside. Architect, J. N. Fatkin, 17, Bigg-market, Newcastle-on-Tyne. No contracts let.

Stockton-on-Tees. — G. P. Stainsby, 25, High-st., prepared plans for garage and showroom, Yarm-la., for C. Newman, Ltd.

Stourbridge.—Joint Hospital Board propose extensions to Hayley Green isolation hospital, at £78,000. Architects, Folkes & Folkes, Hagley-rd.

Sunderland.—It is proposed to erect factory at Grangetown for Hendon Paper Works Co. Architects, W. & T. R. Milburn, 17, Fawcett-st.

Urmston.—Flixton, Davyhulme and District Conservative Club members (hon. secretary J. Collier) proposing new headquarters in Flixton-rd., at £2,000.

Wandsworth.—B.C. approved: E. A. Hunt, 5 blocks of flats for B.C. on site at junction of Easthill and Fairfield-st.; W. W. Dawes, Ltd., 2 shops with living accommodation over on site of 558, Garratt-ln.; Snelling & Rayment, drains at "Coach and Horses" p.h., Clapham Park-rd.—Plans approved for interim: Church-ln., Tooting, new hospital buildings and remodelling of existing buildings on site of St. Benedict's Hospital; Streatham High-rd., multi-storey garage, corner with Gracefield-gdns.; Canmore-gdns., Streatham, sports club pavilion on site of Streatham Vale Sports & Social Club; King's-av., Clapham Park, 4-storey building containing 16 flats and a common garage at rear of No. 18; Upper Richmond-rd., Putney, block of residential chambers and a range of lock-up garages at No. 261; Woodleigh-gdns., Streatham, 18 maisonettes and 11 garages on site at southern end; Balham High-rd., conversion of No. 229 into showrooms and offices in connection with the business of a credit draper; Leigham Court-rd., Streatham, block of flats on site of Nos. 116-118; Brixton-hill, Streatham, lock-up garages and a single-storey boiler room at rear of Nos. 241-245; Old Town, Clapham North, 4 and 5-storey building, comprising offices, board and committee rooms and a 2-storey building comprising garages with caretaker's and chauffeur's quarters over, on site of Nos. 31-33; Clapham-rd., Clapham North, premises for commercial and industrial use at Nos. 414-420; Mitcham-rd., Tooting, 1 and 2-storey building, comprising shops with staff rooms over, on site of Nos. 55 and 57; Leigham Court-rd., 4-storey block of flats and garages on site of No. 14; Frogmore, Southfields, rebuilding of "Prince Alfred" p.h., Nos. 36-38; Merton-rd., Southfields, extension to factory at No. 267.

West Ham.—C.B. approved:—24 lock-up garages rear of 59-65, Cumberland-road. A. Foster.

West Hartlepool.—H. K. Dyer, 57, Raby-rd., proposes hotel, Raby-rd. Plans by J. J. Dobson, 1, Scarborough-st.—Plans approved for houses and bungalows near Elmwood-rd., for Watt Brothers, 210, Park-rd.—C. M. Yuill, builder, Villiers-st., to erect houses in Westbrooke-av., and Potter & Monaghan, Burn-rd., to erect houses, Station-la.

Westminster.—City Council approved plans for interim development:—South Bruton-mews, petrol-filling station; Pimlico-wharf, 145, Grosvenor-rd., warehouse building; 80b, 81 and 82, Dean-st., shops, offices, showrooms, etc.; Page-st. and New-st. No. 2, clinic and office block (for new Westminster Hospital); 11, Bruton-st., erection of offices and/or showrooms; 101, Grosvenor-rd., rebuilding of part of factory; 17-23, Willow-pl., business premises; 23, Buckingham-gate, rebuilding as offices; 183-191, Vauxhall Bridge-rd. and 17-25, Tachbrook-st., theatre; 140-146, Horseferry-rd. and 37-43, Chadwick-st., shops and offices; 1-11, Princes-gate, flats; Marsham-st. and Vincent-st. (corner), offices.

Wolverhampton.—T.C. approved:—L. & J. D. Butcher, Hilton-st., warehouse and workshop.

*See also List of Contracts Open.

****In these lists every care is taken to ensure that information given is accurate and up to date, but it may occasionally happen that, owing to building owners taking the responsibility of commencing work before plans are finally approved by the local authorities, "proposed" works at the time of publication have been actually commenced. List of abbreviations on page 996.**

BUILDINGS ILLUSTRATED

Poplar Town Hall.

The builders of the Municipal Buildings and Town Hall, Poplar (illustrated on pages 973-8), were Messrs. Gee, Walker and Slater, Ltd., of Fitzmaurice-place, W.1. Sub-contractors were: Steelwork, Matthew T. Shaw and Co., Ltd.; reinforced concrete and terrazzo, Diespeker and Co., Ltd.; Portland stone, Frank Mortimer, Ltd.; electrical, Electrical Installations, Ltd.; heating and ventilation, Donald Smith and Co.; steel windows, The Crittall Manufacturing Co., Ltd.; cast stone, Malcolm MacLeod and Co., Ltd.; stone anchors, etc., The Abbey Building Supplies Co.; foundation stone, E. J. and A. T. Bradford; pavement lights, Lenscrete, Ltd.; lifts, Marryat and Scott, Ltd.; sanitary fittings, Adamsez, Ltd.; lightning conductors, J. W. Gray and Son, Ltd.; metal work, James Gibbons, Ltd.; false ceilings, The Trussed Concrete Steel Co.; insulating materials, Newalls Insulation Co.; roof paving, Christiani and Nielson, Ltd.; lantern lights, Haywards, Ltd.; dictographs, Dictograph Telephones, Ltd.; bronze doors, etc., The Morris-Singer Co.; fibrous plaster, G. Jackson and Sons, Ltd.; external marble, Anselm Odling and Sons, Ltd.; tiling, Chas. Walker and Co.; neon lighting, Maple and Co., Ltd.; internal marble, Fenning and Co., Ltd., glass dome lights, Pilkington Bros., Ltd.; bronze railings, also furniture, H. H. Martyn and Co., Ltd.; metalwork, Garton and Thorne, Ltd.; floor springs, Robert Adams, Ltd.; iron stairs, Safety Tread Syndicate, Ltd.; lightning conductors, W. J. Furse and Co. (London), Ltd.; faience and ceramic mosaic, Carter and Co. (London), Ltd.; blinds, Accordo Blinds, Ltd.; seating, Cox and Co.; carpeting, Pixtons, Ltd.; electrical fittings, Harcourts, Ltd.; metal work and light fittings, C. Harvey and Co.; steel shelving, etc., G. A. Harvey and Co.; filing cabinets and lockers, Roneo, Ltd.; ironmongery, Yannedis and Co.; locks, Hobbs, Hart and Co., Ltd.; ironmongery, The Dryad Metal Works; wood block floors, Jos. F. Ebner, Ltd.; lettering, Dale's; electric signs, Imperial Sign Co.; doors, Drytone Joinery, Ltd.; stainless steel sinks, A. Johnson and Co.; iron stairs, S. W. Farmer and Son, Ltd.; "Glazement," Hoyle, Robson, Barnett and Co., Ltd.; special furniture, H. H. Martyn and Co., Ltd., and Gordon Russell, Ltd.; carpets, Sidney Laughton and Peter Jones, Ltd.; electrical supply, Poplar Borough Council Electricity Dept.; and asphalt for roof and basement, Excel Asphalte Co., Ltd.

Messrs. Culpin and Son, F. and A.R.I.B.A., were the architects.

RATES OF WAGES IN THE BUILDING TRADE

AS AND FROM 1st FEBRUARY, 1938.

[Every endeavour is made to ensure accuracy, but we cannot be responsible for errors.]

	Crafts-men.	Lab-ourers.
Aberavon	1/7½	1/2¾
Aberdare	1/7	1/2½
Abergavenny	1/7	1/2½
Abingdon	1/6	1/1½
Accrington	1/7½	1/2¾
Aldeburgh	1/3½	11¾
Aldershot	1/5½	1/1½
Alfreton	1/7½	1/2¾
Alnwick	1/7	1/2½
Altrincham	1/7½	1/2¾
Amble	1/7	1/2½
Amersham	1/6	1/1½
Ammanford	1/7½	1/2¾
Andover	1/5½	1/1½
Ardingley	1/5½	1/1½
Arundel	1/5½	1/1½
Ascot	1/5½	1/1½
Ashby-de-la-Zouch	1/6	1/1½
Ashford (Kent)	1/5	1/0½
Ashford (Middlesex)	1/7½	1/2¾
Ashington	1/7	1/2½
Ashtead	1/7½	1/2¾
Ashton-under-Lyne	1/7½	1/2¾
Aylesbury	1/5½	1/1½
Aylsham	1/4½	1/0½
Bagshot	1/5½	1/1½
Banbury	1/5½	1/1½
Barnsley	1/7½	1/2¾
Barnstaple	1/5½	1/1½
Barrow-in-Furness	1/7½	1/2¾
Barry	1/7½	1/2¾
Basingstoke	1/5½	1/1½
Bath	1/6½	1/2
Batley	1/7½	1/2¾
Beaconsfield	1/6	1/1½
Beccles	1/4	1/0
Bedford	1/6½	1/2
Berkhamsted	1/5	1/0½
Berwick	1/7	1/2½
Beverley	1/7½	1/2¾
Bexhill-on-Sea	1/5½	1/1½
Bideford	1/5½	1/1½
Biggleswade	1/5	1/0½
Billericay	1/5	1/0½
Birchington	1/5	1/0½
Birkenhead	‡§1/9½	¶
Birmingham	1/7½	1/2¾
Bishop Auckland	1/7½	1/2¾
Bishops Stortford	1/6	1/1½
Blackburn	1/7½	1/2¾
Blackpool	1/7½	1/2¾
Blyth	1/7½	1/2¾
Bognor Regis	1/5½	1/1½
Bolton	1/7½	1/2¾
Bournemouth	1/6½	1/2
Bracknell	1/5½	1/1½
Bradford	1/7½	1/2¾
Bradford-on-Avon	1/4½*	1/0½
Braintree	1/5½	1/1½
Brentwood	1/7	1/2½
Bridgwater	1/5½	1/1½
Bridlington	1/7	1/2½
Brighouse	1/7½	1/2¾
Brighton	1/6½	1/2
Bristol	1/7½	1/2¾
Broadstairs	1/5	1/0½
Bromsgrove	1/6½	1/2
Buckley	1/7½	1/2¾
Bungay	1/3½	11¾
Burnham-on-Crouch	1/4	1/0
Burnley	1/7½	1/2¾
Burslem	1/7½	1/2¾
Burton-onTrent	1/7½	1/2¾
Bury	1/7½	1/2¾
Bury St. Edmunds	1/5	1/0½
Buxton	1/7	1/2½
Byfleet	1/6	1/1½
Cambridge	1/7	1/2½
Canterbury	1/5	1/0½
Cardiff	1/7½	1/2¾
Carlisle	1/7½	1/2¾
Carnforth	1/7½	1/2¾
Castleford	1/7½	1/2¾
Caterham	1/7½	1/2¾
Chard	1/4½*	1/0½
Chatham	1/6	1/1½
Chelmsford	1/6	1/1½
Cheltenham	1/6½	1/2
Chepstow	1/6½	1/2
Chertsey	1/6½	1/2
Chester	1/7½	1/2¾
Chesterfield	1/7½	1/2¾
Chichester	1/5½	1/1½
Chorley	1/7½	1/2¾
Cirencester	1/5*	1/0½
Clacton	1/5½	1/1½
Cleveleys	1/7½	1/2¾
Clitheroe	1/7½	1/2¾
Cobham (Surrey)	1/6½	1/2
Colchester	1/6½	1/2
Colwyn Bay	1/6½	1/2
Congleton	1/7	1/2½
Coventry	1/7½	1/2¾
Cranbrook	1/5	1/0½
Cranleigh	1/5½	1/1½
Crawley	1/5½	1/1½
Crewe	1/6½	1/2
Cromer	1/4½	1/0½
Crowborough	1/5½	1/1½
Cuckfield	1/5½	1/1½
Darlington	1/7½	1/2¾
Darwen	1/7½	1/2¾
Daventry	1/6	1/1½
Deal	1/5	1/0½
Denbigh	1/6	1/1½
Derby	1/7½	1/2¾
Devizes	1/4*	1/0
Dewsbury	1/7½	1/2¾
Didcot	1/5½	1/1½
Diss	1/4	1/0
Doncaster	1/7½	1/2¾
Dorchester	1/5*	1/0½
Dorking	1/6	1/1½
Dover	1/5	1/0½
Dovercourt	1/5½	1/1½
Driffield	1/6	1/1½
Droitwich	1/6½	1/2
Dudley	1/7½	1/2¾
Dunstable	1/5½	1/1½
Durham City	1/7½	1/2¾
Eastbourne	1/6½	1/2
E.Glam. (Mon. Val.)	1/7	1/2½
East Grinstead	1/5½	1/1½
Edenbridge	1/5½	1/1½
Ely	1/4	1/0
Epping	1/7½	1/2¾
Exeter	1/6½†	1/2
Exmouth	1/5½	1/1½
Fakenham	1/4	1/0
Falmouth	1/6	1/1½
Fareham	1/6½	1/2
Faversham	1/5	1/0½
Felixstowe	1/6	1/1½
Filey	1/6	1/1½
Fleetwood	1/7½	1/2¾
Flint	1/7	1/2½
Folkestone	1/5	1/0½
Frinton-on-Sea	1/5½	1/1½
Frome	1/4½*	1/0½
Gainsborough	1/6½	1/2
Gateshead	1/7½	1/2¾
Gillingham (Kent)	1/6	1/1½
Glossop	1/7½	1/2¾
Gloucester	1/6½†	1/2
Godalming	1/5½	1/1½
Goole	1/7½	1/2¾
Gosport	1/6½	1/2
Grantham	1/6½	1/2
Gravesend	1/7	1/2½
Great Yarmouth	1/5½	1/1½
Grimsby	1/7½	1/2¾
Guildford	1/5½	1/1½
Guilsborough	1/6	1/1½
Halifax	1/7½	1/2¾
Hanley	1/7½	1/2¾
Harpenden	1/6	1/1½
Harrogate	1/7½	1/2¾
Hartlepools	1/7½	1/2¾
Harwich	1/5½	1/1½
Haslemere	1/5½	1/1½
Hastings	1/5½	1/1½
Hatfield	1/6½	1/2
Haywards Heath	1/5½	1/1½
Hednesford	1/7	1/2½
Hemel Hempstead	1/6½	1/2
Henley-on-Thames	1/5½	1/1½
Hereford	1/5½*	1/1½
Herne Bay	1/5	1/0½
Hertford	1/6½	1/2
Heysham	1/7½	1/2¾
Hitchin	1/6	1/1½
Hoddesdon	1/6½	1/2
Holt (Norfolk)	1/3½	11¾
Horley	1/5½	1/1½
Horsham	1/5½	1/1½
Horwich	1/7½	1/2¾
Huddersfield	1/7½	1/2¾
Hull	1/7½	1/2¾
Hunstanton	1/4	1/0
Huntingdon	1/4½	1/0½
Ilfracombe	1/5½	1/1½
Ingatestone	1/5½	1/1½
Ipswich	1/6½	1/2
Isle of Thanet	1/5	1/0½
Isle of Wight	1/4½	1/0½
Keighley	1/7½	1/2¾
Kenilworth	1/7½	1/2¾
Kettering	1/7	1/2½
Kidderminster	1/6½	1/2
King's Lynn	1/5	1/0½
Kirkham	1/7½	1/2¾
Knowle	1/7	1/2½
Lancaster	1/7½	1/2¾
Leamington	1/7½	1/2¾
Leatherhead	1/6½	1/2
Leeds	1/7½	1/2¾
Leicester	1/7½	1/2¾
Leighton Buzzard	1/4½	1/0½
Letchworth	1/6	1/1½
Lewes	1/5½	1/1½
Lichfield	1/6½	1/2
Lincoln	1/7½	1/2¾
Littlehampton	1/5½	1/1½
Liverpool	‡§1/9½	¶
Llandudno	1/6½	1/2
Llanelly	1/7½	1/2¾
London—		
12 m. radius	1/9*	1/3¾
12-15 m. radius	1/8½*	1/3½
Long Eaton	1/7½	1/2¾
Longton	1/7½	1/2¾
Loughborough	1/7½	1/2¾
Louth	1/6	1/1½
Lowestoft	1/5½	1/1½
Luton	1/7	1/2½
Macclesfield	1/7	1/2½
Maidenhead	1/6	1/1½
Maidstone	1/6	1/1½
Malvern	1/6	1/1½
Manchester	1/7½	1/2¾
Manningtree	1/4	1/0
Mansfield	1/7½	1/2¾
March	1/4½	1/0½
Margate	1/5	1/0½
Market Harborough	1/6½	1/2
Matlock	1/6	1/1½
Melton Constable	1/3½	11¾
Melton Mowbray	1/6½	1/2
Merthyr Tydfil	1/7	1/2½
Middlesbrough	1/7½	1/2¾
Middleton	1/7½	1/2¾
Middlewich	1/6½	1/2
Milford Haven	1/5½	1/1½
Morecambe	1/7½	1/2¾
Morley	1/7½	1/2¾
Mundesley	1/4½	1/0½
Nantwich	1/6½	1/2
Nelson	1/7½	1/2¾
Newark-on-Trent	1/6½	1/2
Newbury	1/5½	1/1½
Newcastle-on-Tyne	1/7½	1/2¾
Newcastle-u-Lyme	1/7½	1/2¾
New Forest	1/4½	1/0½
Newmarket	1/5½	1/1½
Newport, Mon.	1/7½	1/2¾
Newport Pagnell	1/5½	1/1½
Northampton	1/7½	1/2¾
Norwich	1/7½	1/2¾
Nottingham	1/7½	1/2¾
Nuneaton	1/7½	1/2¾
Oakham	1/6	1/1½
Oldham	1/7½	1/2¾
Ormskirk	1/7½	1/2¾
Oxford	1/7	1/2½
Oxted	1/6	1/1½
Paignton	1/7	1/2½
Peterborough	1/7	1/2½
Plymouth	1/7½	1/2¾
Pontefract	1/7½	1/2¾
Pontypridd	1/7	1/2½
Portsmouth	1/6½	1/2
Port Talbot	1/7½	1/2¾
Preston	1/7½	1/2¾
Pulborough	1/5½	1/1½
Ramsgate	1/5	1/0½
Reading	1/6½	1/2
Redditch (Northern)	1/6½	1/2
Redhill	1/6	1/1½
Reigate	1/6	1/1½
Retford	1/6	1/1½
Rickmansworth	1/7	1/2½
Ripon	1/6	1/1½
Rochdale	1/7½	1/2¾
Rochester	1/6	1/1½
Rugby	1/7½	1/2¾
Saffron Walden	1/4	1/0
St. Albans	1/7	1/2½
St. Helens	1/7½	1/2¾
St. Neots	1/4½	1/0½
Salisbury City	1/4½*	1/0½
Salisbury Plain	1/5½*	1/1½
Sawbridgeworth	1/5½	1/1½
Saxmundham	1/3½	11¾
Scarborough	1/7	1/2½
Scunthorpe	1/7½	1/2¾
Selby	1/7½	1/2¾
Sevenoaks	1/6	1/1½
Sheerness	1/5	1/0½
Sheffield	1/7½	1/2¾
Shipley	1/7½	1/2¾
Shoeburyness	1/7	1/2½
Shoreham	1/6½	1/2
Shrewsbury	1/6½	1/2
Sittingbourne	1/5	1/0½
Skegness	1/6½	1/2
Sleaford	1/6	1/1½
Slough	1/6½	1/2
Southampton	1/7	1/2½
Southend-on-Sea	1/7	1/2¾
Southport	1/7½	1/2¾
South Shields	1/7½	1/2¾
Spalding	1/5½	1/1½
Stafford	1/7	1/2¾
Staines	1/6½	1/2
Stamford	1/6½	1/2
Stevenage	1/6	1/1½
Stockport	1/7½	1/2¾
Stockton-on-Tees	1/7½	1/2¾
Stoke-on-Trent	1/7½	1/2¾
Stourbridge	1/7	1/2½
Stourport	1/6½	1/2
Stowmarket	1/4	1/0
Stratford-on-Avon	1/6	1/1½
Stroud	1/6†	1/1½
Sunderland	1/7½	1/2¾
Sutton Coldfield	1/7½	1/2¾
Swaffham	1/3½	11¾
Swanage	1/5½*	1/1½
Swansea	1/7½	1/2¾
Swindon	1/6*	1/1½
Tamworth	1/7	1/2½
Taunton	1/5½	1/1½
Tenterden	1/5	1/0½
Thames Haven	1/7½	1/2¾
Thetford	1/4	1/0
Thorpe Bay	1/7	1/2½
Todmorden	1/7½	1/2¾
Tonbridge	1/6	1/1½
Torquay	1/7	1/2½
Totnes	1/5½	1/1½
Trowbridge	1/4½*	1/0½
Truro	1/4½	1/0½
Tunbridge Wells	1/6	1/1½
Uppingham	1/6	1/1½
Uttoxeter	1/6	1/1½
Wakefield	1/7½	1/2¾
Walsall	1/7½	1/2¾
Walsden	1/7½	1/2¾
Walton-on-Naze	1/5½	1/1½
Ware	1/6½	1/2
Warminster	1/4½*	1/0½
Warrington	1/7½	1/2¾
Warwick	1/7½	1/2¾
Wellingborough	1/7	1/2½
Wells (Norfolk)	1/3½	11¾
Welwyn	1/6½	1/2
Welwyn Gar. City	1/7½	1/2¾
West Bromwich	1/7½	1/2¾
Westcliff-on-Sea	1/7	1/2½
Weston-super-Mare	1/6½	1/2
Weybridge	1/6½	1/2
Weymouth	1/5*	1/0½
Whitby	1/6½	1/2
Whitstable	1/5	1/0½
Widnes	1/7½	1/2¾
Wigan	1/7½	1/2¾
Wigton	1/6	1/1½
Willington	1/7	1/2¾
Wilmslow	1/7½	1/2¾
Winchester	1/5½	1/1½
Windermere	1/6	1/1½
Windsor	1/6½	1/2
Wisbech	1/4½	1/0½
Witham	1/5½	1/1½
Woking	1/6	1/1½
Wokingham	1/5½	1/1½
Wolverhampton	1/7½	1/2¾
Woodbridge	1/4½	1/0½
Worcester	1/7	1/2½
Workington	1/6½	1/1½
Worksop	1/6	1/2
Worthing	1/5½	1/1½
Wrexham	1/7	1/2½
Wroxham	1/5	1/0½
Wycombe	1/6	1/1½
Wymondham	1/4	1/0
Yeovil	1/5½	1/1½
York	1/7½	1/2¾

* Painters 1d. less than other Craftsmen. † Painters ½d. less than other Craftsmen. ‡ Plasterers 1/10

¶ Tradesmen's Labourers 1/4½. Navvies and General Labourers 1/3¾

Joiners, Plumbers, Bricklayers, Tilers and Masons receive 2/- per week or 4d. per day Tool Money.

For Building Trade Wages in Scotland see page 1004.

CURRENT PRICES FOR BUILDING WORK IN LONDON.

Note.—These prices apply to new buildings only. They cover superintendence by foreman and carry a profit of 10 per cent. on the prime cost, without establishment charges. A percentage of 1½ should be added for Employers' Liability and National Health and Unemployment Acts, and from 1s. 6d. per £100 Fire Insurance. The whole of the information given is copyright.

PRELIMINARIES.		£	s.	d.
Hoardings, with suitable gate, 8 ft. high	per ft. run	0	3	0
Steel scaffolding for brickwork	per sqre.	1	5	0
Steel scaffolding for stone building	,,	1	10	0
Steel gantry for stone building	per ft. run	2	10	0
Office, shed for cement and mess-room	say	75	0	0
EXCAVATOR.				
Digging, throwing out and filling into carts and carting to shoot, 5 ft. deep	per yd. cube	0	7	9
Add if stiff clay	,,	0	1	0
Add for every additional 5 ft.	,,	0	0	6
Add if in trenches	,,	0	0	9
Add to price of digging for breaking up concrete foundation and brickwork	,,	0	10	0
Return, fill and ram	,,	0	1	9
Fill into carts and cart away	,,	0	3	6
Planking and strutting to trenches	per ft. super	0	0	3½
Planking and strutting to sides of basement excavation next roadway	,,	0	1	4
Needling, flying and raking shores and removing after and carting away	per ft. cube	0	6	9
CONCRETOR.				
Portland cement and ballast concrete 1-6 in. foundations	per yd. cube	1	2	0
Add in underpinning in short lengths	,, ,,	0	6	0
Concrete in floors, ¾ in. aggregate, and sand, 1-2-4—				
4 in. thick	per yd. super	0	3	4
6 in. thick	,, ,,	0	4	8
Add if trowelled smooth	,, ,,	0	0	9
Add for hoisting, each floor	,, ,,	0	0	3
Concrete 1-2-4 in. beams and stanchions	per ft. cube	0	1	4
Concrete in lintols, with steel rod reinforcement each 4½ in. width and shuttering	,, ,,	0	4	0
1½ in. centering, with stout supports for concrete floors	per square	2	2	0
Do. to sides and soffites of beams	per ft. super	0	0	8
Do. to sides of stanchions	,, ,,	0	0	7
Steel rod reinforcement under ⅝ in. diameter, cut, bent and placed in position	per cwt.	1	8	0
Do. do. over ⅝ in. diameter	,,	1	5	0
BRICKWORK.				
Reduced to 1½ brick in flettons, lime mortar	per rod	26	0	0
Add for 2nd hard stocks	,,	8	0	0
Add for Blue Staffordshire	,,	22	0	0
Add to above if in 1-4 cement	,,	0	15	0
Add if in backing to stonework	,,	1	5	0
Add if in underpinning in cement	,,	4	10	0
Add if above 40 ft. to 60 ft. high	,,	2	0	0
SUNDRIES.				
Damp course in double course of slates, breaking joint	per ft. super	0	0	11
Vertical do. do.	,,	0	1	2
Bitumastic	,,	0	0	5
Lead core	,,	0	0	10
Cut, tooth and bond new to old brickwork	,,	0	1	0
Rake out joints of brickwork	,,	0	0	1
Leave chase for concrete floor	per ft. run	0	0	2
Cut chase 4½ in. deep for concrete floor	,,	0	1	2
Leave chase for vertical pipe	,,	0	0	4
Cut chase for vertical pipe	,,	0	1	4
Rake out joint for flashings and point	,,	0	0	2
Do. stepped do.	,,	0	0	4
Do. for asphalt skirting	,,	0	0	2
Build in ends of timbers	each	0	0	4
Do. steel joists up to 12 in. deep	,,	0	0	6
Do. step and make good facings	,,	0	1	6
Set and flaunch chimney pots	,,	0	7	6
Render fire openings	,,	0	2	0
Bed and point door frames one side	,,	0	3	0
Do. both sides	,,	0	4	6
Do. window frames, one side	,,	0	4	0
Setting only register grate	,,	1	0	0
Do. interior hearths and mantles	,,	1	15	0
Do. kitchen range, large	,,	5	0	0
Fix air brick and form flue	,,	0	2	0
Cut holes for pipes and make good facings, 9 in. wall	,,	0	2	0
Do. do. 13½ in. wall	,,	0	2	6
Do. large pipes and do. 9 in. wall	,,	0	3	0
Do. do. 13½ in. wall	,,	0	3	6
FACINGS.				
Extra for facings in Flemish bond for each 10s. per thousand over the price of Flettons	per ft. super	0	1½	
Pointing facings to approval	,,	0	3	
Arches extra over Flettons in stocks	,,	0	8	
Do. in reds	,,	1	0	
Do. rubbed and gauged in putty	,,	5	9	

PARTITIONS.		£	s.	d.
2 in. breeze slab partitions in cement	per yd. super		4	0
3 in. do. do.	,,		4	6
2 in. hollow-tile do.	,,		4	9
3 in. do. do.	,,		5	6
PAVING.				
1 in. granolithic paving gauged 5—2	per yd. super		2	7
1½ in. do. do.	,,		2	11
1 in. × 6 in. covered skirting	per ft. run		0	10
ASPHALT (NATURAL).				
½ in. horizontal damp course	per ft. super		0	6
¾ in. horizontal damp course	,,		0	8
¾ in. vertical do. in two layers	per yd. super		9	6
¾ in. in flats, two layers	,,		6	0
Angle fillet	per ft. run		0	3
6 in. skirting and angle fillet and jointing top edge	,,		1	0
DRAINAGE.				
Excavate, trench for drain and throw out, return, fill and ram, and including any planking and strutting required, and cart away surplus earth per ft. run	1 ft. deep	0	5	
	2 ft. deep	0	10	
	3 ft. deep	1	3	
	4 ft. deep	1	8	
	5 ft. deep	4	2	
	6 ft. deep	5	0	
	7 ft. deep	5	10	
	8 ft. deep	6	8	
4 in. best quality glazed stoneware drain pipe, socketed joints, yarn and neat cement, on and including cement concrete bed, 18 in. wide and 6 in. thick, and benched up on each side of pipe	per ft. run		2	4
6 in. do. do. do. but concrete bed 20 in. and 6 in. thick	,,		3	0
9 in. do. do. do. but concrete bed 23 in. wide and 6 in. thick	,,		4	11
Extra for 4 in. bends	each		2	6
Do. 6 in. ,,	,,		3	6
Do. 9 in. ,,	,,		5	6
Extra for 4 in, junctions	,,		2	9
Do. 6 in. ,,	,,		3	9
Do. 9 in. ,,	,,		6	0
4 in. stoneware gully, encased in concrete and making good granolithic paving	,,		13	0
6 in. do.	,,		14	0
9 in. do.	,,		18	6
4 in. stoneware interceptor, and surround with concrete	,,	1	5	0
6 in. do.	,,	1	10	0
9 in. do.	,,	2	10	0
IRON DRAINS.				
4 in. C.I. drain and laying and jointing in molten lead	per ft. run		3	4
6 in. do. do.	,,		5	0
Extra for 4 in. bends	each		10	0
Extra for 6 in. bends	,,		18	0
Extra for 4 in. junctions	,,		17	6
Extra for 6 in. junctions	,,		30	0
MASON.				
Bath stone and all labour, fixed	per ft. cube		10	9
Portland stone and all labour, fixed	,, ,,		17	9
York stone templates, fixed	,, ,,		12	6
York stone steps, fixed	,, ,,		16	0
York stone cills, fixed	,, ,,	1	2	0
SLATER.				
24 × 12 Bangor slates laid to 3 in. lap secured with zinc nails	per square	3	18	6
20 × 10 do.	,,	3	13	6
16 × 8 do.	,,	3	11	6
Extra to eaves course	per ft. run		0	9
Extra to top edge and square abutments	,,		0	4½
Extra to verge and labour only, bedding and pointing	,,		0	7½
Raking, cutting and waste	,,		0	7
Half-round red ridge tile	,,		1	2
Half-round blue ridge tile	,,		1	8
Fixing only soakers	per dozen		0	9
Red hand-made sand-faced tiles laid to 4 in. gauge, nailed every fifth course with galvanised iron nails	per square	3	0	0
Extra to eaves course	per ft. run		0	5
Extra to top edge and square abutments	,, ,,		0	3½
Extra to verge and bed and point	,, ,,		0	11
Half-round ridge	,, ,,		1	4
Bonnet hips, including cutting and waste (both sides)	,, ,,		3	8
Valley tiles, including cutting and waste (both sides)	,, ,,		3	6
Fixing only soakers	per dozen		0	9

CURRENT PRICES FOR BUILDING WORK IN LONDON.—continued.

CARPENTER AND JOINER.

		s.	d.
Fir framed in plates	per ft. cube	4	0
Do. joints	„ „	4	6
Do. roofs, etc.	„ „	5	3
Do. trusses	„ „	6	9

		¾in.	1in.	1½in.
Deal rough close boarding	per sq.	32/-	38/-	47/-
Battens for slating	„	10/-	11/-	12/-

		£	s.	d.
Centre for arches	per ft. super		1	6
Gutter boards and bearer	„ „		1	0

FLOORING.

		¾in.	1in.	1½in.	1¾in.
Deal edges shot	per sq.	—	41/-	49/-	58/-
Do. tongued and grooved	„	—	46/-	55/-	67/-
Do. matchings	„	42/-	47/6	—	—
Moulded skirtings, including backings and grounds	per ft. super	1/4	1/7	1/9	2/3
Mitres	each	-/6	-/8	-/9	1/-
Stop ends	„	-/3	-/4	-/4	-/6

SASHES AND FRAMES.

		s.	d.
One-and-a-half in. moulded sashes	per ft. super	1	9
Two in. do. do.	„ „	2	0
Add for fitting and fixing	„ „	0	2
Deal cased frames, 1 in. linings, 1¼ in. pulley and stiles, 2 in. moulded sashes, in squares, hardwood cill, double hung with pulleys, lines and weights, average size	„ „	3	3

DOORS.

		1¼in.	1½in.	2in.
Two-panel square framed	per ft. super	2 1	2 3	2 5
Four-panel do.	„ „	2 4	2 6	2 9
Two-panel moulded both sides	„ „	2 6	2 9	2 11
Four-panel do. do.	„ „	2 9	2 11	3 2

		£	s.	d.
Flush doors. 1¼ in. to 2 in. finished thickness skeleton core, covered each side with Columbian pine ply, solid pine edging, 2 ft. 6 in. by 6 ft. 6 in.	each	1	15	0
Do., covered with Gaboon mahogany ply, solid mahogany edging, 2 ft. 6 in. by 6 ft. 6 in.	„	2	0	0
Solid core, all as first item	„	2	0	0
Solid core, all as second item	„	2	5	0
Shaped peep holes, 4 sided	„	0	5	0
Hexagonal holes	„	0	6	0
Circular holes	„	0	7	0

FRAMES.

		s.	d.
Deal wrot moulded and rebated	per ft. cube	12	0
Hardwood do. do.	„ „	36	0

		1in.	1½in.	1¾in.
Plain deal jamb linings, framed	per ft. super	1 7	1 8	1 11
Deal shelves and bearers	„ „	1 2	1 4	1 7
Add if cross-tongued	„ „	-/2	-/2	-/2
Deal window board, tongued to oak cill and bearers	„ „	1 6	1 9	2 0

		£	s.	d.
Deal moulding, tongued and grooved to window board	per ft. run		0	6

SUNDRIES.

		s.	d.
Deal architrave, including mitres per sectional inch.	per ft. run	0	1
Glazing beads, deal fixed	„ „	0	2
Do. fixed with brass screws and cups	„ „	0	4
Rebate	„ „	0	0½
Groove	„ „	0	0½
Notching	„ „	0	2
Tongued and grooved angle	„ „	0	3½
Rounded heel and hollow	„ „	0	2½

STAIRCASES.

		1in.	1¼in.	1½in.	2in.
Deal treads and risers on and including rough brackets	per ft. super	2/-	2/3	2/8	—
Deal strings, wrot and framed	„ „	—	—	2/2	2/8
Housings	each				0 9
Mahogany handrail, average 3 in. x 3 in.	per ft. run				5 6
Add if ramped	„ „				11 0
Add if wreathed	„ „			1	2 0

FIXING ONLY IRONMONGERY.

	s.	d.
Barrel bolts	0	8
Sash fasteners	1	0
Casement fasteners	1	2
Casement stays	1	2

FIXING ONLY IRONMONGERY—*Continued.*

	£	s.	d.
Flush bolts		1	6
Cupboard locks		1	6
Rim locks and furniture		2	0
Mortice locks and furniture		4	0
Floor springs, including oil	1	0	0
Overhead springs		5	0

FOUNDER AND SMITH.

		£	s.	d.
Rolled steel joists	per cwt.	1	1	0
Compound girders	„	1	4	0
Stanchions	„	1	6	0
Roofwork	„	1	12	0

RAINWATER GOODS.

		3 in.	4 in.	5 in.	6 in.
Half-round eaves gutters and fixing	per ft. run	1/3	1/4	1/10	1/11
Ogee do. do.	„ „	1/5	1/6	2/1	2/9
R.W. pipe and fixing	„ „	1/7	2/1	—	—
Extra for shoes and bends	each	3/3	4/6	—	—
Do. stopped ends	„	1/3	1/7	2/-	3/-
Do. nozzles and angles	„	2/7	3/-	4/2	4/8

PLUMBER.

		s.	d.
Milled lead and laying in flashings and gutters	per cwt.	40	0
Do. in flats	„	39	0
Extra labour and solder in cesspools	each	6	0
Welt joint	per ft. run	0	4
Soldered seam	„ „	1	6
Copper nailing—close	„ „	0	3
Do. do. open	„ „	0	2
Soldered dots	each	2	0
Bossed ends to rolls	„	0	6

		½in.	¾in.	1in.	1½in.	1½in.	2in.	4in.
Lead overflow per ft. run		-/8½	1/-	1/6	1/9	2/1	2/9	—
„ service	„	1/2	1/9	2/8	3/6	4/-	5/3	—
„ soil	„	—	—	—	—	—	—	6/-
Bends in pipe each		—	—	—	—	1/9	2/-	5/6
Wiped solder joints	„	1/9	2/3	2/6	3/-	3/4	4/-	5/9
Lead traps and cleaning screws	„	—	—	—	6/6	9/6	—	—
Stopcocks and joints	„	11/-	14/-	18/-	—	—	—	—

PLASTERER.

		s.	d.
Render, float and set in lime and hair	per yd. super	2	0
Do. narrow widths	per ft. super	0	4
Do. and set with Sirapite	per yd. super	2	3
Do. narrow widths	per ft. super	0	4
Do. and set with Keenes	per yd. super	3	0
Do. narrow widths	per ft. super	0	5½
Add sawn lathing	per yd. super	1	4
Add metal lathing (not including hangers or runners for suspended ceilings)	„ „	2	4
Portland cement screed	„ „	1	7
Do. plain face	„ „	3	3
Mouldings in plaster	per 1 in. girth	0	1½

GLAZIER.

		s.	d.
24 oz. sheet	per ft. super	0	7½
26 oz. sheet	„ „	0	8
24 oz. Obscured sheet	„ „	0	8½
Double Cathedral	„ „	0	9½
Majestic	„ „	0	10
Flemish	„ „	0	10
Pinhead Morocco	„ „	0	10
¼ in. rough rolled or cast plate	„ „	0	10½
¼ in. wired cast plate	„ „	1	1½

PAINTER.

		s.	d.
Preparing and distempering, two coats	per yd. super	0	7½
Knotting and priming	„ „	0	7
Plain painting, one coat	„ „	0	9
Do. two coats	„ „	1	2
Do. three coats	„ „	1	9
Do. four coats	„ „	2	4
Graining	„ „	2	3
Varnishing, twice	„ „	1	9
Sizing	„ „	0	3
Flatting	„ „	0	7
Enamel	„ „	1	1
Wax polishing	per ft. super	0	6
French polishing	„ „	1	2
Preparing for and hanging paper	per piece	2/- to 4/-	

PRICES CURRENT OF MATERIALS*

Owing to the exceptional circumstances which prevail at the present time prices of materials should be confirmed by inquiry.

CHANGES OF THE WEEK. Lead advances by 10/-.

BRICKS, &c.

Delivered to site, City and Central Area, Full Lorry Loads.

	£ s. d.
Best Stocks	4 15 0
Second Hard Stocks	4 8 0

Per 1,000. Delivered at London Goods Stations.

2½ in Phorpres.	King's Cross Station. per 1,000. s. d.	To sites in W.C. District. per 1,000 s. d.
Pressed bricks	46 3	50 6
Cellular bricks	46 3	50 6
Keyed bricks	48 3	52 6
Cellular Keyed bricks	48 3	52 6
Rustic bricks	*66 3	*70 6
Cellular Rustic bricks	*66 3	*70 6
Single Bullnose	64 3	68 6
White bricks	*66 3	*70 6
Sandfaced bricks	—	75 6

* Subject to a special discount of 2s. per 1,000 if accompanied by order for Pressed

	£ s. d.
White Midhurst Facing Bricks (delivered London site)	3 12 6
Best blue Pressed Staffs	8 6 6
Do., Bullnose	8 16 6
Blue Wire Cuts	7 4 0

Best Stourbridge Fire Brick:—

£ s. d.		£ s. d.
2½ in. 7 15 0	3 in.	8 15 0

GLAZED BRICKS—

Best White Ivory and Salt Glazed Stretcher	24 0 0	D'ble Str'tch'rs	32 10 0
		D'ble Headers	29 10 0
		One side & two ends	33 10 0
Headers	23 10 0	Two sides & one end	34 10 0
Quoins, Bullnose and 4½in. Flats.	30 10 0	Splays and Squints	31 0 0

Second Quality, £1 per 1,000 less than best. Cream and buff, £2 extra over white. Other colours. Hard Glaze, £5 10s. extra over white.

PARTITION SLABS.

Delivered London Area.

"PHORPRES" HOLLOW PARTITION BLOCKS.

2" per yd. sup.	2 3	3" per yd. sup.	2 9
2½" " "	2 6	4" " "	3 1

CLINKER CONCRETE.

2" per yd. sup.	1 6	3" per yd. sup.	2 0
2½" " "	1 8	4" " "	2 4

CRANHAM TERRA COTTA.

2" per yd. sup.	3 0	3" per yd. sup.	3 8
2½" " "	3 6	4" " "	4 7

HEMPSTEAD—KEYED TWO SIDES.

12" x 9" x 2"	2 6	12" x 9" x 3"	3 0
12" x 9" x 2½"	2 9	12" x 9" x 4"	3 9

Per yard super d/d. Free on site, London

	s. d.	
Thames Ballast	7 3 per yd.	delivered 2 miles radius Paddington.
Pit Ballast	6 3 " "	
Pit Sand	7 9 " "	
Washed Sand	8 3 " "	
½in. Shingle	7 3 " "	
¾in. Broken Brick	11 3 " "	
Pan Breeze	8 3 " "	

CEMENT.

Best British Portland Cement. Standard Specification delivered London Area in jute sacks (11 to ton), or paper bags (20 to ton) free (non-returnable):—

	£ s. d.
4 ton loads and upwards site Per ton	2 2 0
1 ton to 4 tons site	2 5 0
Alongside Vauxhall in 80-ton lots	1 19 6
"Ferrocrete" Rapid Hardening Cement:—	
4 ton loads and upwards site	2 8 0
1 ton to 4 tons site	2 11 0
Alongside Vauxhall in 80-ton lots	2 5 6

Stores in Reserved Bins at Works 1/6 ton extra.

NOTE.—Jute sacks are charged 1s. 6d. each and credited 1s. 6d. nett, if returned in good condition within three months, carriage paid.

"Aquacrete" Water Repellent, "BlueCircle" Cement, 30/- per ton extra on ordinary "Blue Circle" Portland Cement prices.

"Colorcrete" Nos. 1 and 2 Coloured Rapid Hardening Portland Cement in 1-cwt. paper bags free (non-returnable) in 1-ton lots and upwards site. 3 9 0

"Colorcrete," not rapid-hardening, in 1-cwt. paper bags free (non-returnable), according to colour, from £7 to £15 10s. per ton.

"Snowcrete" White Portland Cement in 1-cwt. paper bags free (non-returnable)

1 tons and upwards site	8 15 0
Super Cement (Waterproof) paper bags free	3 12 0
Roman Cement £6 15 Keene's Cement, White	6 0 0
Parian Cement £6 0 " " Pink	5 12 6

Cementone Colours for cement according to tints per cwt. from £2 16s. 0d.

PLASTER.

	£ s. d.		£ s. d.
Coarse, Pink	3 2 0	Sirapite, Coarse	3 10 0
White	3 12 6	" Finish	3 18 0
Pioneer	3 10 6		
Super Carbo	2 7 6	4-ton loads & over London Area, paper bags free.	
Carbo Setting	2 12 6		
Best Ground Blue		Grey Stone Lime	2 2 0
Lias Lime	1 17 6	Chalk Lime	2 2 0
GraniteChippings	1 2 0	Hair per cwt.	2 7 6

NOTE.—Sacks are charged 1s. 9d. each, and credited 1s. 6d., if returned in good condition within three months, carriage paid.

Stourbridge Fireclay in sacks 37s. per ton at rly. dep.

STONE.

BATH STONE.—Delivered in railway trucks at Westbourne Park, Paddington, G.W.R., or South Lambeth, G.W.R., per ft. cube s. d. 2 10½

BEER STONE—RANDOM BLOCK—

Free on rail at Seaton Station. per ft. cube	2 3
Delivered free on rail Nine Elms, S.R. "	3 1½

Selected approximate size one way, 1d. per cubic ft. extra, selected approximately three sizes or for special work, 3d. per cubic ft. extra.

PORTLAND STONE—

	s. d.
Brown Whitbed, in random blocks of 20 ft. average, delivered in railway trucks at Nine Elms, S. Rly., South Lambeth Station, G.W.R., and Westbourne Park, Paddington, G.W.R., per ft. cube	4 5
Do. do. delivered on road waggons as above stations, per ft. cube	4 6

White basebed, 3d. per ft. cube extra.

NOTE.—1d. per ft. cube extra for every ft. over 20 ft. *average* and ½d. beyond 30 ft.

HOPTON-WOOD STONE—

F.O.R. Quarries, Wirksworth, Derbyshire. Random blocks from 10 ft. and over P.ft.cb.	14 0
Sawn two sides	22 6

HOPTON-WOOD STONE—

Sawn three or four sides	27 9

YORK STONE, BLUE.—*Robin Hood Quality.*

Delivered at any Goods Station, London.

6 in. sawn two sides landings to sizes (under 30 ft. super) per ft. super	5 0
6 in. rubbed two sides, ditto "	5 6
3 in. sawn two sides slabs (random sizes) "	2 3½
2 in. to 2½ in. sawn one side slabs (random sizes) "	1 6½
1½ in. to 2 in., ditto "	1 3½

HARD YORK—

Delivered at any Goods Station, London.

Scappled random blocks Per ft. cube	6 3
6 in. sawn two sides landings to sizes (under 40 ft. super) per ft. super	5 1½
6 in. rubbed two sides, ditto "	6 1½
4 in. sawn two sides slabs (random sizes) "	3 1½
2 in. ditto ditto "	2 5
2 in. self-faced random flags. Per yd. super	7 6

CAST STONE.

Delivered in London area in full van loads, per ft. cube: Plain, 7s. 6d. Moulded, 8s. 6d. Sills, 10s. 0d.

HARD WOOD.

1 INCH AND UP THICK

Average price for prime quality.	£ s. d.
Dry Austrian Wainscot, per ft. cube	0 17 0
Dry American and/or Japanese Figured Oak, per ft. cube 10 0 to	0 12 6
Dry American and/or Japanese plain Oak, per ft. cube	0 11 6
Dry sq. edged Honduras Mahogany, per ft. cube	0 15 0
Dry log-cut Honduras Mahogany, per ft. cube 12 6 to	0 16 6
Dry Cuba Mahogany, per ft. cube	1 1 0
Dry Teak, per ft. cube	0 14 0
Dry American Whitewood, per ft. cube	0 10 6
Best Scotch Glue, per cwt.	3 0 0
Liquid Glue, per cwt. 4 7 0 to	5 10 0

SOFT WOOD.

GOOD BUILDING DEAL.

Inches.	Per stan.	Inches.	Per stan.
4 × 11	£26 10	3 × 6	£22 10
4 × 9	26 10	3 × 11	26 10
4 × 8	24 10	2 × 11	26 10
4 × 7	24 10	3 × 9	23 10
3 × 8	22 10	2½ × 9	23 10
3 × 7	22 10	3 × 4½	22 0
2½ × 7	22 10	3 × 4	22 0

PLANED BOARDS.

1 × 11	£26 10	1 × 9	£25 0

PLAIN EDGE FLOORING.

Inches.	Per sq.	Inches.	Per sq.
¾	17/-	1¼	28/-
¾	20/-	1½	35/-
1	22/-		

TONGUED AND GROOVED FLOORING.

Inches.	Per sq.
1	22/6
1¼	29/-
1½	36/-

ins. BATTENS. s. d.

¾×2 per 100 ft. 2 6

MATCHING (BEST).

Inches.	Per sq.
¾	18/-
¼	20/-
1	26/-

SAWN LATHS. s. d.

Per bundle. 2

SLATES.

First quality slates from Penrhyn or Portmadoc, carriage paid in full truck loads to London Rate Station. Per 1,000 actual.

	£ s. d.		£ s. d.
24 by 12	31 5 0	18 by 10	16 10 0
22 by 12	26 5 0	18 by 9	14 17 6
22 by 11	23 12 6	16 by 10	14 7 6
20 by 12	23 2 0	16 by 8	11 6 0
20 by 10	20 15 0		

TILES.

Delivered at London rate stations in full truck loads of not less than 6 tons. Per 1,000 f.o.r. London.

Best machine-made tiles from Broseley or Staffordshire district	£4 2 6
ditto hand-made ditto	4 17 6
Ornamental ditto	5 2 6
Hip and valley tiles (per dozen) { Hand-made	0 8 6
{ Machine-made	0 8 0

METALS.

JOISTS, GIRDERS, &c., TO LONDON STATION, PER TON—

	£ s. d.
R.S. Joists, cut and fitted	£17 10 0
Plain Compound Girders	20 10 0
" " Stanchions	22 10 0
In Roof Work	27 10 0

MILD STEEL ROUNDS.—To London Stations, per ton.

Diameter.	£ s. d.	Diameter.	£ s. d.
¼ in.	18 5 0	⅜ in. to ½ in.	16 15 0
⅝ in.	17 5 0	¾ in. to 2½ in.	16 5 0

WROUGHT-IRON TUBES AND FITTINGS—

(Discount off List for lot of not less than £10 net value delivered direct from Works, 2½ per cent. less above gross discounts, carriage forward, if sent from London Stocks.)

	Standard Wrot. Mild Steel Tubes and Tubulars. Sizes. ¼in. to ⅜in.	Standard Tubes Sizes. ½in. to 2in.	Standard Flanges. Sizes. ¾in. to 2in.	Standard Fittings.
	%	%	%	%
Gas	60	65	62½	58½
Water	57	62½	62½	55
Steam	53½	58½	51½	50
Gal. gas	50	55	51½	48½
Galv. water	45	50	43½	43½
Galv. steam	38½	43½	38½	40

C.I. HALF-ROUND GUTTERS—London Price ex Works

Per yd. in 6 ft. lengths.	Gutters.	Angles and Nozzles.	Stop Ends.
3in.	1/9½	1/8	7d.
3½in.	2/1	2/-	8½d.
4in.	2/1	2/-	8½d.
4½in.	2/2½	2/1	9d.
5in.	2/4½	2/4	10d.
O.G. GUTTERS.			
3in.	2/1	2/-	8½d.
3½in.	2/3½	2/2	9½d.
4in.	2/5	2/4	10½d.
4½in.	2/6	2/5	1/0½
5in.	2/10	2/9	1/2½

RAIN WATER PIPES, &c.

Per yd. in 6ft.	Pipe.	Bends, stock angles.	Branches. stock angles.
2in.	2/8½	1/8	2/5½
2½in.	2/9½	1/11	2/11½
3in.	3/8	2/4½	3/7½
3½in.	4/1	2/10½	4/1½
4in.	4/9½	3/5	5/-

Less 20 per cent. trade discount.

Tonnage allowance—4-ton lots, 5 per cent. 2-ton lots, 2½ per cent.

L.C.C. COATED SOIL PIPES—London Prices ex Stock,

	Pipe. s. d.	Bends, stock angles. s. d.	Branches. stock angles. s. d.
2in. per yd. in 6fts.	3 5	2 5	2 11
2½in. "	3 10	2 8	3 3
3in. "	4 2	2 11	4 4
3½in. "	4 7	3 3	5 0
4in. "	5 1	4 0	5 10

L.C.C. COATED DRAIN PIPES.—London Prices, ex Stock.

	Pipe. s. d.	Bends, stock angle. s. d.	Branches, stock angles. s. d.
3in. per yd. in 9ft. lengths	4 9	5 4	8 9
4in. " cwt. qr. lbs. 1 1 20	6 0	6 3	11 0
5in. " 1 2 22	8 4	11 0	16 11
6in. " 2 0 6	10 0	12 10	21 3

Gaskin for jointing 45/- per cwt.

	Per ton. £ s. d.		London £ s. d.
IRON—			
Common Bars	13 15 0	..	14 15 0
Staffordshire Crown Bars—			
Good merchant quality	15 10 0	to	17 0 0
Staffordshire Marked Bars	18 0 0	..	19 0 0
Mild Steel Bars	13 10 0	..	14 10 0
Steel Bars, Ferro-Concrete quality, basic price	15 0 0	..	16 0 0
Hoop iron, basic prices	15 0 0	..	16 0 0
" Galvanised	25 0 0	..	27 0 0

HUDDERSFIELD
Building Society

Experience has shown that the arrangements made by the Huddersfield to assist occupier borrowers have given the utmost satisfaction, and the service rendered has been greatly appreciated by builders' clients.

Write for information to The Huddersfield Building Society, Britannia House, 203, Strand, London, W.C.2, or to the Head Office, Britannia Buildings, Huddersfield. Andrew Stewart, C.A., Managing Director.

WHEN YOU INVEST—A HOUSE IS BEST

* The information given on this page has been specially compiled for THE BUILDER, and is copyright. The aim in this list is to give, as far as possible, the *average* prices of materials, not necessarily the highest or lowest. Quality and quantity obviously affect prices—a fact which should be remembered by those who make use of this information.

PRICES CURRENT OF MATERIALS—(*Cont.*)

IRON— Per ton in London.

	£ s. d.	£ s. d.
Soft Steel Sheets, Black—		
Ordinary sizes, to 20 g. ..	17 5 0 ..	18 5 0
" " 24 g. ..	18 5 0 ..	19 5 0
" " 26 g. ..	19 5 0 ..	20 5 0
Sheets, Flat, Best Soft Steel, C. R. and C.A. quality—		
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 22 g. and 24 g.	18 10 0 ..	19 10 0
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 26 g....	20 10 0 ..	21 10 0
No. 1 quality £4 per ton extra.		
Flat and Galvanised Corrugated Sheets—		
Ordinary sizes, 6 ft. to 9 ft. to 20 g.	20 0 0 ..	22 0 0
Ordinary sizes, 6 ft. to 9 ft. to 22 g. and 24 g...	20 10 0 ..	24 0 0
Ordinary sizes, 6 ft. to 9 ft. to 26 g.	22 10 0 ..	24 10 0
Sheets, Galvanised, Flat, Best quality—		
Best Soft Steel Sheets, 6 ft. by 2 ft. to 3 ft. to 20 g. and thicker	21 0 0 ..	24 0 0
Best Soft Steel Sheets, 22 g. and 24 g.	22 0 0 ..	21 10 0
Best Soft Steel Sheets, 26 g.	23 10 0 ..	24 10 0
Cut Nails, 3 in. to 6 in.	19 10 0 ..	21 10 0
(Under 3 in. usual trade extras.)		

METAL WINDOWS.—Standard sizes, suitable for complete houses, including all fittings, painting two coats and delivery to job, average price about 1s. 4d. to 1s. 7d. per foot super.

COPPER.

		s. d.
Seamless Copper tubes (basis)	per lb.	1 1
Strong sheet	"	1 3
Thin	"	1 4
Copper nails	"	1 3
Copper wire	"	1 3

PLUMBERS' BRASS WORK.

Delivered in London.
Stamped by Met. Water Board.

CRUTCH HEAD SCREW DOWN BIB COCKS FOR IRON. EASY CLEAN.

½ in.	¾ in.
32/-	47/- per doz.

CHROMIUM PLATED TOILET SCREW DOWN BIB COCKS FOR IRON. EASY CLEAN.

½ in.	¾ in.
42/-	61/6 per doz.

SCREW DOWN STOP COCKS FOR IRON.

¾in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.	
27/6	42/6	75/-	181/-	264/-	409/-	per doz.

SCREW DOWN STOP COCKS WITH TWO UNIONS FOR LEAD.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.	
46/6	68/6	106/-	205/-	307/-	590/-	per doz.

DOUBLE NUT BOILER SCREWS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.	
7/6	10/6	16/-	29/-	39/-	56/-	per doz.

HEAVY CROYDON BALL VALVES.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	
36/-	59/6	96/-	205/-	278/-	per doz.

CAPS AND SCREWS.

1¼ in.	1½ in.	2 in.	3 in.	3½ in.	4 in.	
10/-	12/-	18/6	32/-	44/-	48/-	per doz.

BRASS FERRULES OR SLEEVES.

1½ in.	2 in.	3 in.	3½ in.	4 in.	
10/-	12/-	22/6	31/-	45/6	per doz.

DRAWN LEAD TRAPS WITH BRASS CLEANING SCREWS.

	1½ in.	1½ in.	2 in.	3 in.	
8 lb. Lead P...	22/6	30/-	42/-	68/-	per doz.
8 lb. Lead S...	25/6	32/6	49/-	83/-	per doz.

SOLDER.—Plumbers', 1/1, Tinmen's, 1/3, Blowpipe, 1/5 per lb.

PAINTS, &c.

		£ s. d.
Raw Linseed Oil, in pipes	per gallon	0 2 7
" " " in barrels	"	0 2 9
" " " in drums	"	0 2 11
Boiled " " in barrels	"	0 3 0
" " " in drums	"	0 3 2
Turpentine, in barrels	"	0 3 2
" in drums (10 gals.) ..	"	0 3 4
Genuine Ground English White Lead, per ton		50 0 0

(In not less than 5-cwt. casks.)
Extra for 1-cwt. kegs over 5-cwt. casks is 2/9 cwt.

GENUINE WHITE LEAD PAINT.

"Father Thames," "Nine Elms," "Park," "Supremus," "St Pauls," "Morganswyte," "Polacco," "J" Brand, and other best brands (in 14-lb. tins) not less than 5-cwt. lots per ton delivered

£ s. d.
69 0 0
38 0 0
0 14 9
0 3 6

Red Lead, Dry (packages extra). . per ton
Best Linseed Oil Putty ..... per cwt.
Size. XD quality ..... fkn.

VARNISHES, &c.

		Per gallon.
Oak Varnish	Outside	0 14 0
Fine Do.	"	0 16 0
Fine Copal	"	0 18 0
Pale Copal	"	1 0 0
Pale Opal Carriage	"	1 4 0
Best do.	"	1 12 0
Floor Varnish	Inside	0 18 0
Fine Pale Paper	"	0 18 0
Fine Copal Cabinet	"	1 2 0
Fine Copal Flatting	"	1 0 0
Hard Drying Oak	"	0 18 0
Fine Hard Drying Oak	"	0 19 6
Fine Copal Varnish	"	1 0 6
Pale do.	"	1 12 0
Best do.	"	1 2 6
Best Japan Gold Size		1 12 6
Best Black Japan		0 10 0
Oak and Mahogany Stain (water)		0 12 0
Brunswick Black		0 7 6
Berlin Black		0 14 0
Knotting (patent)		0 15 0
French and Brush Polish		0 12 0
Liquid Dryers is Terebene		0 9 0
Cuirass Black Enamel		0 7 0

THE SCOTTISH BUILDER

NEW BUILDINGS

The Editor welcomes authentic information for this feature from architects, surveyors or contractors. Where business representatives cannot be seen personally at this stage, this should be mentioned. Items should reach 4, Catherine-street, Aldwych, W.C.2, not later than Wednesday morning.

BRIDGE OF ALLAN.—FOUNDRY.—Messrs. Cornton Metals, Ltd., Stirling, are to erect a foundry on the old gasworks site at Cornton.

BUCKHAVEN.—FIRE STATION.—The T.C. have agreed to erect a new fire-station, at £3,000.

CLYDEBANK. — HOUSES.—The Dean of Guild Court has granted warrant to the T.C. for 210 houses at Mount Blow, Dalmuir.

EDINBURGH.—HOME.—The Dean of Guild Court has granted permission to the Royal Edinburgh Hospital for Incurables to erect a nurses' home for the nursing staff of the Longmore Hospital on a site formerly occupied by two houses at 9-11, Salisbury-road. The estimated cost of the new home is £40,000. The architect is Mr. J. Douglas Miller, F.I.A.A., 30, Walker-street, Edinburgh. Other plans passed were for the Trustees of the Episcopal Church in Scotland (Diocese of Edinburgh), to erect a church-hall at Hay-drive, Niddrie Mains.

GLASGOW. — SCHOOLS. — The E.C. have approved of the plans for a new Albert primary school on the site of the old Albert School, at £50,000. The committee also agreed to proceed with a new St. Philomena's Roman Catholic School in Garngad-road.

GLASGOW. — ADDITIONS.—Plans in hand for alterations and additions to warehouse premises at Jamaica-street. Mr. Thomas Forbes Maclennan, architect, 57, Melville-street, Edinburgh.

GREENOCK. — HOUSES.—The Corporation has provisionally decided to erect, at Lady Octavia Park, 40 houses from plans to be prepared by Mr. David L. Henderson, architect, Old Harbour Trust offices.

KILMARNOCK. — HOUSES.—The T.C. has approved of a proposal by the Scottish Special Areas Housing Association to build 700 houses at Shortless Farm, Riccarton.

LANARKSHIRE. — BUILDING.—The C.C. have agreed to convert the Omoa Poorhouse into a hospital at Cleland, at between £20,000 and £30,000, and to modernise St. Mary's School, at £17,000.

LANARKSHIRE.—BRIDGE.—The County Council Road Board has approved of the plans for the construction of a single-span bridge to replace the existing Kirkfieldbank bridge about half a mile from Lanark on the Lanark-Hamilton road. The new bridge is to cost £35,000.

NORTH LENZIE.—POLICE STATION.—Plans prepared by Mr. Joseph Wilson, architect, 18, Park-circus, Glasgow, for new police-station, offices, and other accommodation have been approved.

PAISLEY. — HOUSES.—The Corporation is to supply houses for the aged in a new scheme of development at Ferguslie, the architect being Mr. F. Stewart, Gilmour-street offices.

PETERHEAD. — RECONSTRUCTION. — The management committee of the Cottage Hospital have agreed to reconstruct a house in Links-terrace as a cottage hospital, at £6,000. The architect is Mr. J. A. W. Grant, 25, Rutland-square, Edinburgh.

RENFREWSHIRE.—HOUSES.—The Department of Health for Scotland has approved of the plans presented by the C.C. for 24 houses in Main-street, Thornliebank.

ST. ANDREWS.—EXTENSIONS.—Plans have been prepared by Mr. George Sandilands, architect, St. Catherine's-street, Cupar, for an extension estimated at £9,000, to St. Andrew's school.

STIRLINGSHIRE. — BUILDING. — The County Public Health Committee's Plans Committee has approved of the following plans: Bonnybridge Silica and Fireclay Co.,

BUILDING TRADE WAGES IN SCOTLAND

Following are grade rates authorised by the Scottish N.J.C. from April 1. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur.

Grade Classification	A	A^1	A^2	A^3	B	B^1
Craftsmen.....	1/8	1/7½	1/7	1/6½	1/6	1/5½
Labourers	1/3	1/2¾	1/2½	1/2	1/1½	1/1½

Aberdeen .....A	East Fife (embraced by a line from Largo to Kingsbarns and eastward to the Coast)..B	Hamilton .....A	Perthshire.....A
Ayrshire .....A	East Lothian .....A	Inverness .....[1]	Peterhead .....A
Banff .....B	Edinburgh .....A	Inverurie .....A^1	Renfrewshire .....A
Berwickshire .....A^2	Fifeshire (with the exceptions of towns in East Fife which are under Grade B) ..A	Kincardineshire ....A^2	Rothesay .....A
Bridge of Allan .....A		Kinross-shire .....A	Roxburghshire .....A^1
Broughty Ferry .....A		Lanarkshire .....A	St. Andrews .....A
Clackmannanshire ....A		Mid-Lothian .....A	Selkirkshire .....A^1
Doune .....A		Monifieth .....A	Stewartry .....A^1
Dunblane .....A		Moray and Nairn ....B	Stirlingshire .....A
Dumbartonshire .....A	Forfarshire .....A	Newport .....A	Stornoway .....A
Dumfriesshire .....A^1	Glasgow .....A	Peeblesshire .....A^2	Tayport .....A
Dundee .....A	Greenock .....A	Perth .....A	West Lothain.....A
Dunoon .....A			

[1] This town has its own rates: Masons, 1/6; Carpenters, 1/6; Slaters, 1/6, Plumbers, 1/6½; Plasterers, 1/7 but 1/8 is paid owing to the scarcity at present; Painters, 1/6; and Labourers, 1/1½.

The information given in this table is copyright. Rates of wages in England and Wales are given on page 1070.

GLASS.

ENGLISH SHEET GLASS IN CRATES OF STOCK SIZES.

ORDINARY GLAZING QUALITY AND SELECTED GLAZING QUALITY.

per ft. super.		per ft. super.	
15 oz. O.Q.	2½d.	32 oz. O.Q.	5½d.
18 .. S.Q.	2½d.	32 „ S.Q.	6½d.
24 „ O.Q.	3½d.	Obscured Sheet, 18 oz.	3d.
24 „ S.Q.	3½d.	" " 24 "	4½d.
26 „ O.Q.	3½d.	Fluted ..... 21 oz.	9d.
26 „ S.Q.	4½d.	Em'lld 18 oz., 5½d., 24oz. 6½d.	

Extra price according to size and substance for squares cut from stock.

ENGLISH ROLLED PLATE AND FIGURED CATHEDRAL, ETC., IN CUT SIZES.

	Per ft. s. d.
Rolled plate, ¼ in.	5½d.
Rough cast double rolled, ¼ in.	6½d.
Rough cast double rolled, ½ in.	6½d.
Figured rolled, etc., white	6½d.
Figured rolled, etc., tinted.	9½d.
Rolled Sheet	6d.
White rolled cathedral	6d.
Tinted rolled cathedral	8½d.

Rolled plate is the same price as rough cast double rolled.

	Per ft. s. d.
Reeded, Broad Reeded, Cross Reeded and Chevron Reeded, ¼ in. thick	0 10½
Wire Rolled, ¼ in. thick	0 9½
Wired Cast, ¼ in. thick.	0 9½
"Calorex" Sheet, 21 oz.	2 6
" 32 oz.	4 0
" Cast, ¼ in. thick	0 10
" " ⅛ in. thick	1 0
" " ½ in. thick	1 [illegible]

"VITA" GLASS.

Clearsheet—not exceeding 1 foot	1 0
" " 2 feet	1 3
" over 2 feet	1 9
Polished plate not exceeding 1 foot	1 6
" " 2 feet	3 0
Cathedral—not exceeding 1 foot	1 0
" larger sizes.	1 6
Horticultural Sheet and Cathedral "Vita" Glass. Sizes up to 24 inches by 18 inches or not exceeding 3 feet.	1 0
3/16 in. Wired Georgian Design. Sizes up to 96 inches long by up to 24 inches wide	2 6

LEAD, &c.

(Delivered in London.)	Per ton. £ s. d.
LEAD.—Sheet, English, 4 lb. and up	24 10 0
Pipe in coils	24 0 0
Soil pipe	29 10 0
Compo pipe	31 5 0

NOTE.—Country delivery, 20/- per ton extra, less under 3 cwt. 4/- per cwt. extra and over 3 cwt. and under 5 cwt., 2/6 per cwt. extra. Cut to sizes, 4/- per cwt. extra.

Old lead, ex London area, at Mills ..... per ton } £14 5 0

Ltd., offices at Bonnybridge, architects, A. and W. Black, 5, King's-court, Falkirk; Congregation of Buchanan Parish Church, to reconstruct church at Buchanan, architects, Clarke, Bell and Craigie, 227, Bath-street, Glasgow; and Westquarter Community Committee, hall at Westquarter, architect, A. N. Malcolm, County Architect, Stirling.

TENDERS ACCEPTED

Caithness.—Road construction scheme between Thurso and John o' Groat's for C.C. :—*J. Baxter & Son (Contractors), Ltd., Dunfermline, £85,890.

Carluke.—222 houses, for Housing Association. A. Mottram, architect, 14, Frederick-st., Edinburgh. J. H. Underwood & Son, quantity surveyors, 49, Queen-st., Edinburgh :—Excavation, brick, building, joinery, carpentry and ironmongery, *Scottish Special Areas Housing Association, Ltd., Edinburgh; glazing, *W. Purdon & Son, Glasgow; plumber and sanitary engineering, *A. W. Thomson, Bellshill; slating and roughcasting, *A. C. Whyte & Co., Ltd., Glasgow; electrical fittings and installation, etc., *J. Marshall & Co., Carluke; iron railings, gates, *W. Bain & Co., Ltd., Coatbridge.

Elgin.—Farm house, Deanshaugh, for T.C. J. & W. Wittet, architects, 81, High-st. Quantities by architects :—Masons—*Davidson & Hay; carpenter—*W. H. M. Killigan; slaters—*G. Bain & Sons; plumbers—*Cruickshank & Smith; plasterer—*J. Macdonald; painter—*J. Henderson.

Holytown.—92 houses, for Housing Association. Alexander Mottram, architect, 14, Frederick-st., Edinburgh. J. H. Underwood & Son, quantity surveyors, 49, Queen-st., Edinburgh :—Excavation, brick, building, joinery, carpentry and ironmongery, *Scottish Special Areas Housing Association, Ltd., Edinburgh; glazing, *W. Purdon & Son, Glasgow; plumber and sanitary engineering, *A. W. Thomson, Bellshill; slater and roughcasting, *A. C. Whyte & Co., Ltd., Glasgow; electrical fittings and installation, etc., *D. Henderson & Son, Ltd., Glasgow; iron railings, gates, *P. & R. Fleming & Co., Glasgow.

Kilmarnock.—Public convenience, Hillhead-pk., and conveniences at Bonnyton-pk. and Glencairn Mill, for T.C. W. Dunbar, B.S., 17, Green-st. :—*J. Dickson & Co., Waterside-st., Kilmarnock.

Lanarkshire.—120 houses and other offices, Kininmonth & Spence, architects, 16, Rutland-sq., Edinburgh. James D. Gibson & Simpson, quantity surveyors, 60, Frederick-st., Edinburgh :—Excavation, brick and mason, *Stellmacs, Ltd., Glasgow, £58,213; roads formation, *Whyte (Contractors), Ltd., Edinburgh, £4,357.

Motherwell.—Road bottoming work in connection with erection of timber houses at Calderbank, for Lanarkshire C.C. :—*Murdoch M'Kenzie, Motherwell, £2,952.

Rutherglen.—14 houses, etc., at Burnside, Eskdale-dr. Norman MacFayden, architect and quantity surveyor, 36, Borland-dr., Bearsden :—Excavation, brick and mason, *J. Lawrence & Co., Ltd., Glasgow; plumber and sanitary engineering, *J. Y. Symington, Govanhill; slater and roughcaster, *A. C. Whyte & Co., Ltd., Pollockshaws; joinery, carpentry and ironmongery, *Lawrence Building Co., Ltd., Glasgow; painting, glazing, *J. Chisholm & Son; electrical fittings and installation, *Kenneth McAlpine & Co., Govanhill; iron railings, gates, *P. & R. Fleming & Co., Glasgow; plaster and lathing, *A. MacKellar, Glasgow.

¶Scotland (H.M.O.W.).—Tenders accepted during week ending November 15:—Post Office Garage, Milton-st. and Renton-st., Glasgow—erection of a workshop, boiler room, etc., R. Gilchrist & Son, Ltd., 29-37, Stevenson-st., Glasgow, S.E. Telephone Exchange, Kirkintilloch—extension, Robert Gilchrist & Son, Ltd., 29-37, Stevenson-st., Glasgow, S.E.

Stirlingshire.—32 houses at Milton of Campsie, for C.C. :—Brickwork—*J. Baxter & Sons, Kilsyth. Joiner—*J. J. and P. MacLachlan, Larbert. Slater, roughcast and plaster—*W. Wallace & Son, Blanefield. Plumber—*D. Johnston, Strathaven. Painter—*N. M. Mackenzie, Stenhousemuir. Electrical—*E. Masson, Denny.

Tannockside.—272 houses, for Housing Association. A. Mottram, architect, 14, Frederick-st., Edinburgh. J. H. Underwood & Son, quantity surveyors, 49, Queen-st., Edinburgh :—Excavation, brick, building, joinery, carpentry and ironmongery, *Scottish Special Areas Association, Ltd., Edinburgh; plumbing and sanitary engineering, *Whyte & Young, Uddingston; slating and roughcasting, *A. C. Whyte & Co., Ltd., Glasgow; electrical fittings and engineering, etc., *D. Henderson & Sons, Ltd., Glasgow; iron railings, gates, *J. Robertson & Co., Ltd. Keppochhill; glazing and allied works, etc., *W. Purdon & Son, Glasgow.

Obituary: W. A. Ward, A.M.I.M.E.

We regret to announce the death on Friday, November 11, at his home, "Quarryside," Ivy Park-road, Sheffield, of Mr. William A. Ward, A.M.I.M.E., Assistant Managing Director of Thos. W. Ward, Limited, Sheffield, and eldest son of the Chairman, Mr. Joseph Ward, J.P. Mr. Ward commenced his career with Thos. W. Ward, Limited, over thirty years ago, was appointed a Local Director in 1919, became a full Director in 1925, and in March, 1928, was appointed Assistant Managing Director. He was an engineer of wide experience and was specially connected with the machinery and engineering activities of the company.

TRADE NEWS

A Southampton Estate.

At Southampton, on Friday, December 9, Hampton and Sons, Arlington-street, acting with Messrs. Waller and King, Southampton, have to submit the Basset Wood and Holt Estate of about 110 acres, forming a building estate with over 6,500 ft. of existing road frontages. The property adjoins the town and Stoneham Golf Course.

Door Fittings Catalogue.

A new door fittings catalogue, S.D.39, has been issued by Messrs. Geo. W. King, Ltd., of Hartford Works, Hitchin. An introduction to the publication, which is illustrated, states that whilst the basic design of the firm's gear is unchanged, they have introduced new track sections and improved trolley carriages, etc., for a comprehensive range for doors weighing from a few pounds up to three tons each.

A Steel Mesh Lathing.

A new folder pointing out the advantages of "Hy-Rib" in the construction of ceilings has been issued by Hy-Rib Sales, Horseferry House, Westminster, S.W.1.

"Hy-Rib" is a steel-mesh lathing stiffened by rigid ribs, the ribs and the lath forming complete units. It is claimed that the ribs provide the necessary strength to carry over long spans, and that "Hy-Rib" is quickly erected and results in strong, permanent fire-resisting structures.

A New Catalogue.

A catalogue just published by Messrs. Robey and Co., Ltd., engineers, Globe Works, Lincoln, gives some indication of the varied character of the firm's manufactures and some brief particulars concerning them. The catalogue is divided into sections as follows: (1) Winders, Steam and Electric. (2) Air-compressors. (3) Diesel Engines. (4) Boilers and Welded Work. (5) Steam Engines. (6) Stone Crushers. (7) Road and Footpath Rollers. (8) Sisal Machinery. (9) Alloy Castings. Copies of the catalogue may be obtained on request from Messrs. Robey and Co., Ltd.

HALL OF NATIONS
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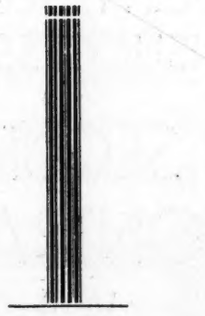

ARCHITECT
PERCY THOMAS P.RIBA

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Steel Door and Window Frames.

Messrs. Henry Hope and Sons, Ltd., Halford Works, Smethwick, Birmingham, have recently published a brochure containing full-size details and diagrams showing the various steel door frames and pressed steel frames for windows which the firm is now manufacturing. Illustrations of a number of buildings on which the products of the firm have been employed include those of Working Men's Flats, Liverpool (L. H. Keay, F.R.I.B.A., architect); Worthing Hospital (John Saxon Snell, architect); Kent and Canterbury Hospital, Canterbury (Cecil Burns, architect); Children's Home, The Firs Estate, Smethwick (Roland Fletcher and Chester Button, assoc. engineer and architect); Manchester Royal Infirmary (Thomas Worthington and Sons, architects); Unity House, Liverpool Co-operative Society (Ormrod and Banister, architects); Shrubland Hall Estate, Leamington Spa (J. Sutcliffe, Borough Engineer); South Africa House, London (Sir Herbert Baker, R.A., architect); University of Liverpool (Willink and Dod, architects); Troy Court, Kensington (Michael Rosenauer, architect); and Peter Jones Premises, Sloane-square, S.W. (Slater and Moberly architects; Professor Reilly and W. Crabtree, associate architects).

PUBLIC WORKS

FLINTSHIRE.—The C.C. have approved plans for new county offices, estimated to cost £70,000.

GT. BRITAIN (Ministry of Health).—Following are notes on some loans sanctioned by the Minister of Health during the week ended November 5: Birkenhead C.B.C.—£71,500 for erection of gasholder; Birmingham C.C.—£141,648 for terminal buildings, hangars, etc., at Municipal Airport, Elmdon; Hitchin R.D.C.—£53,350 for the provision of water for various parishes; Holyhead U.D.C.—£38,908 for 110 houses on Newry-street site; Merthyr Tydfil C.B.—£21,880 for erection of 50 houses, Galon Uchaf site; Ploughley R.D.C.—£20,410 for erection 48 houses in various parishes; Southampton C.C.—£32,388 for public elem. sch., Brockenhurst; Sunderland R.D.C.—£46,000 for 112 houses, Ryhope, with road and sewer works; Yorkshire (West Riding) C.C.—£53,235 for public elem. sch., Barnoldswick.

GT. BRITAIN.—Among contracts advertised in this issue by local authorities as being open to tender are: Beaminster R.D.C.—six houses with fencing, Melplash; Hayes and Harlington U.D.C.—mortuary, with fencing, drainage, footpaths and other works; Easthampstead R.D.C.—36 working-class dwellings; Dover T.C.—new police station, Ladywell; Portsmouth T.C.—135 flats, Church Path North; Watford T.C.—Community Centre, Leavesden Green Housing Estate; West Bromwich T.C.—maternity block, Hallam Hospital; Dudley T.C.—police buildings and fire station, junction of Tower-street and New-street; Northamptonshire C.C.—additions to hospital block and kitchen, Daventry Public Assistance Institution; Southend-on-Sea T.C.—five cottages for aged persons, Gainsborough-drive.

SOUTHAMPTON.—The E.C. have appointed Messrs. Marshall and Tweedy, FF.R.I.B.A., 96, New Cavendish-street, London, W.1, as architects for the new Boy's Senior School and new Girls' Senior School to be erected at Glen Eyre, Violet-road.

WEST BROMWICH.—The T.C. have agreed to a proposal to erect a welfare building in Jervoise-lane, at a cost of £3,856.

A Contractor's Estate.

Mr. Samuel Holloway (76), of Clapham, of the firm of Holloway Bros. (London), Ltd., left £84,756 (net personalty £81,854).

TENDERS

The Editor welcomes authentic information for this feature from architects, surveyors or contractors. Items should reach 4, Catherine-street, Aldwych, W.C.2, not later than Wednesday morning.

* Denotes *accepted*.
† Denotes *provisionally accepted*.
‡ Denotes *recommended for acceptance*.
§ Denotes *accepted subject to modification*.
¶ Denotes *accepted by H.M. Government departments*.

Ampthill.—16 houses, for R.D.C. Colin B. Sharp, A.R.I.B.A., chartered architect, 4, The Avenue, Flitwick, Bedford:—

Haynes—2, parlour type—		
A. A. Goddard, Flitwick	£1,250	0
H. Fidler & Sons, Luton	1,112	0
D. Nott, Luton	1,074	0
Ampthill Building Co., Ampthill	1,057	0
Stanford & Clark, Ltd., Maulden	998	0
R. M. Townsend, Kempston	995	0
A. T. Bottoms, Silsoe	980	0
W. H. Sharp, Flitwick	970	14
A. Taylor & Sons, Henlow	970	0
Allenby Estate, Ltd., Luton	960	0
Seymour Bros. & Tookey, Stotfold	866	18
Geo. Henman, Bedford	858	12
F. W. Goff, Bedford	856	10
‡A. G. Bird, Kempston	825	0
Lidlington—2, non-parlour, 4-bedroom—		
D. Nott, Luton	1,044	0
J. C. Tarry, Newport Pagnell	1,013	15
R. M. Townsend, Kempston	950	0
Ampthill Building Co., Ampthill	900	0
Allenby Estate, Ltd., Luton	890	0
F. J. Smith & Sons, Marsten	875	10
H. Fidler & Sons, Luton	870	0
W. H. Sharp, Flitwick	860	15
H. W. Summerford, Salford	831	0
A. G. Bird, Kempston	790	0
‡Seymour Bros. & Tookey, Stotfold	770	0
Silsoe—2, parlour type—		
H. Fidler & Sons, Luton	1,112	0
D. Nott, Luton	1,074	0
Stanford & Clark, Ltd., Maulden	1,058	0
Ampthill Building Co., Ampthill	1,025	0
A. W. King, Luton	1,008	2
R. M. Townsend, Kempston	995	0
H. W. Summerford, Salford	995	0
—. Andrews, Luton	983	9
A. Taylor & Sons, Henlow	980	0
A. T. Bottoms, Silsoe	976	0
Allenby Estate, Ltd., Luton	950	0
Seymour Bros. and Tookey, Stotfold	866	0
‡A. G. Bird, Kempston	859	10
Shillington—6 houses—		
Thos. H. Bird, Bradwell	3,056	0
D. Nott, Luton	2,720	0
A. Taylor & Sons, Henlow	2,519	0
Ampthill Building Co., Ampthill	2,515	5
A. W. King, Luton	2,511	12
H. Fidler & Sons, Luton	2,509	6
E. T. Muckleston, Toddington	2,490	0
Allenby Estate, Ltd., Luton	2,424	0
B. Mangan, Henlow	2,380	0
Seymour Bros. & Tookey, Stotfold	2,298	13
‡A. Gregory, Shillington	2,210	0
Lower Stondon—4 houses—		
Thos. H. Bird, Bradwell	2,052	0
D. Nott, Luton	1,830	0
H. Fidler & Sons, Luton	1,670	0
A. Taylor & Sons, Henlow	1,668	0
Allenby Estate, Ltd., Luton	1,600	0
Seymour Bros. & Tookey, Stotfold	1,568	8
B. Mangan, Henlow	1,560	0
‡A. Gregory, Shillington	1,460	0

Ashington.—Bakery for Ashington Co-operative Society. Glass, Harrison & Ash, architects, 14, Ellison-pl., Newcastle:—*C.W.S. Building Dept., West Blandford-st., Newcastle-on-Tyne.

Bawtry.—Widening bridge over River Idle, for Notts C.C. R. A. Kidd, C.S.:—*G G. Middleton & Sons, Gateford-rd., Worksop, £6,790.

Beeston and Stapleford.—Public conveniences, Stapleford, for U.D.C. G. C. Hardy, S.:—*F. Martin, 1, Bailey-st., Stapleford, £767 15s. 8d.

Bollington.—Mass concrete storage reservoir at Lower Brook and balance tank at White Nancy, also laying approximately 5,500 yds. iron pipes, etc., for U.D.C. Brady & Partington, consulting engineers, Market-st., Chapel-en-le-Frith:—*Z. & W. Wade, Buxton-rd., Whaley Bridge (estimated cost £11,515).

Bolton.—Construction of booster station building, Liver Edge-la., for T.C. W. G. Codling, B.E.:—*J. G. Holland & Son (1935), Ltd., 2, Dales-st., Kereseley, Farnworth, near Bolton.

Brandon.—156 houses, for U.D.C., at New Brancepeth. F. Hedley, architect—*Direct Labour, £70,000.

Brighton.—Block of offices, North-st., for Sun Insurance Offices, Ltd. W. H. Overton, F.R.I.B.A., architect, 38, West-st.:—*G. Lynn & Sons, Ltd., 16, Bedford-pl., Brighton.

Bury.—Extension to offices of Board at Parsons-ln., for Irwell Valley Water Board. R. Wyllie, A.M.Inst.C.E., Engineer and Manager, Parsons-ln. Quantities by engineer:—*W. & F. Riley, Ltd., 1, Littlewood-av., Bury.

Bushey.—New boys' and girls' modern schools, for Herts C.C. Dawe & Carter, F. & A.R.I.B.A., architect, 83, High-st., Watford:—*H. C. Janes, Ltd., 189, Hightown-rd., Luton, £46,343.

Cheltenham.—22 houses, for R.D.C. E. H. Rosser, Building S., 14, Imperial-sq.:—*Wildsmith & Hussell, Watery-ln., Newent.

Cheshire.—Works for C.C.: Maternity and child welfare centre adjacent to Council Offices in Wellington-rd., Bollington. F. Anstead Browne, F.R.I.B.A., County Architect, The Castle, Chester:—*Vernon & Smith, Ltd., Station-st., Hazel Grove, Stockport, £2,133; (a) electrical installations; (b) heating installations at the new County Offices, Chester. Ernest Griffiths & Son, consulting engineers, 25b, The Temple, Dale-st., Liverpool:—*(a) Coleman, Ltd., Washway-rd., Sale, £9,745; *(b) Richard Crittall & Co., Ltd., Liverpool, £22,890.

Clare.—Improvements and extensions to hospital, for Clare Mental Hospital Committee. P. J. Sheehan, architect, Limerick:—*Ryan & Sons, Limerick, £65,244 11s. 2d.

Colchester.—Adaption of premises at Clacton-rd., St. Osyth, for electrical showroom and office, for T.C.:—*Norman & Gardiner, £570 10s.

Colne Valley.—Houses, for U.D.C. Lunn, Heppenstall & Lunn, architects, Milnsbridge, Huddersfield:—8 houses, Marina-tce., Golcar. Masons, *S. & S. Sykes, Golcar; joiner, *T. S. Lawton, Slaithwaite; plumber, *J. Garthwaite, Milnsbridge; Slater, *J. Sheridan, Golcar; plasterer, *G. H. Spencer, Huddersfield; painter, *G. H. Day & Sons, Milnsbridge; concreter, *E. Wimpenny, Linthwaite; electrician, *Geo. Chambers, Slaithwaite. 4 bungalows, Leymoor-rd., Golcar:—All as above with the exception of the slaters: *Wm. Smith & Sons, Milnsbridge. 6 bungalows, Wood's-ave. Estate, Marsden:—Masons, *Holroyd & Brook, & Eaglands, Ltd., Slaithwaite; joiners, *J. E. Whitehead & Sons, Marsden; plumber, *T. Firth, Marsden; slaters, *Wm. Smith & Sons, Milnsbridge; plasterer, *G. H. Spender, Huddersfield; painter, *E. Harpin, Marsden; concreter, *Holroyd & Brook & Eaglands, Ltd., Slaithwaite; electrician, *C. Wood, Marsden. 8 houses, Wood's-ave. Estate, Marsden:—All as above with the exception of slaters: *J. & J. Bottomley, Marsden.

Coventry.—Pumping station, Meriden Shafts, including road making, drainage works, foundations, etc., for T.C. Herbert Lapworth & Partners, consulting engineers, 25, Victoria-st., S.W.1:—*Cross & Co., 27a, St. Nicholas-st., Coventry, £3,967.

Darlington.—Electrical installation in council houses, for T.C.:—*Henderson & Priestly, Notting ham, £1,414.

Darlington.—Vestry at Congregational Church. H. E. Jarvis, architect, High-row, Darlington:—*J. R. Hildon & Sons, Neasham-rd., Darlington.

Doncaster.—Erection of new Warmsworth junior and infants' school, Edlington, for the West Riding E.C. H. Wormald, A.R.I.B.A., Education Architect, County Hall, Wakefield:—Builders, *C. F. Ward, Carcroft, near Doncaster, £7,643 18s. 3d.; metal windows, *Mellowes & Co., Ltd., Sheffield, £282 8s.

Dublin.—Works, for Corporation:—Reconstruction of Ballybough Bridge—*Phillips, £3,928 6s. 10d.; plumbing work required at the Wellington quay premises—*Hallett, Ingram & Co., Ltd., £232; reconstruction of Blackhorse bridge—*J. T. Moran & Co., £3,828; two salesmaster's offices in cattle market—*Kyle Bros., £275; painting, etc., at Round Room, Mansion House—*A. P. Walkinson, £339.

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Dublin.—Laying of main in connection with Poulaphouca water supply scheme, for Corporation:—Contract No. 1—*McCaffrey & O'Carroll, £33,122; Contract No. 3—*South of Ireland Asphalt Co., £33,345; Contract No. 4—*T. J. Moran, £25,792; Contract No. 5—*Francois Cementation Co., £207,982; Contract No. 6—*Murray & McCarten, £11,472.

Durham.—Works for C.C. Ward and other internal alterations at Earl's House Sanatorium:—*Bell & Ridley, Durham, £1,096; fittings for remodelling electric lighting, council chamber and anteroom, Shire Hall:—*General Electric Co., Newcastle-on-Tyne, £157; water tower in connection with School Aycliffe Mental Colony:—*Northern Ferro-Concrete Construction Co. (1935), Ltd., £1,504.

Erith.—Works, for U.D.C. J. H. Clayton, E. and S.:—

Alterations to St. Augustine's-rd. schools, Belvedere—		
David Kenn & Sons, Ltd., Bexley	£227	0 0
H. Friday & Sons, Erith	199	17 6
Gearing & Abbott, Belvedere	191	12 0
C. F. Godwin & Son, Erith	181	3 2
*H. E. Chandler, Belvedere	180	8 9
Electricity showrooms, etc., Pier-rd.—		
Hansard, Ltd., London	£32,380	0 0
Walter Lawrence & Son, Ltd., London	31,789	0 0
F. Ling & Sons, Ltd., Erith	31,755	2 2
H. Friday & Sons, Erith	31,148	0 0
David Kenn & Sons, Ltd., Bexley	30,994	0 0
*Gleeson, Ltd., North Cheam	30,225	0 0

Essex.—Works, for C.C.:—Conversion of administrative offices at Oldchurch County Hospital, Romford, for quarters for resident medical officers—‡Hoskings & Son (Essex), Ltd., £625. Providing accommodation for 16 extra beds for maternity cases at Chelmsford institution by adding rooms to top floor of the hospital block—‡H. R. Barber, Writtle, £4,663. Widening and reconstruction respectively of Haveringsgrove bridge, No. 199, and Slough House bridge, No. 200, on Shenfield-Hadleigh-rd—‡W. & C. French, Ltd., Buckhurst Hill, £1,804 7s. 6d. Conversion of part of existing male and female inmates' blocks at Suttons Institution, Hornchurch, for reception of chronic sick patients—‡R. F. King, Romford, £690. Electrical installation at new operating theatre block at Oldchurch County Hospital, Romford—‡Essex Electrical Installations, Ltd., Chelmsford, £511. Proposed duplication of carriageway between Wigram-rd. and Redbridge-ln., Eastern-av.—‡George Wimpey & Co., Ltd., £16,958 3s. 6d.

Failsworth.—30 houses, Lord-la. housing site, for U.D.C. J. W. E. Brown, E. and S.:—*J. H. Cassel & Co., 297, Bury New-rd., Broughton, Manchester, 7.

Folkestone.—Contracts Nos. 2 and 3 for Sandgate area works and pumping installation of Folkestone drainage scheme, for T.C.:—*Squires & Sons, Ltd., £8,345 3s. 7d.

Fowey.—Additions and alterations to the Royal Yacht Club. C. W. Parkes Lees & Son, F.I.A.A. & S., F.F.A.S., M.S.R.A./A.F.A.S., architects, Fowey:—

A. C. Netherton, 26, Park-rd., Fowey	£394
Bromsall & Sons, St. Blazey	358
*Fowey Direct Building Co., Ltd., Fowey	346

Gateshead-on-Tyne.—Two new factories at the North-Eastern Trading Estate. J. W. Hanson & Son, architects, Eldon-sq., Newcastle:—*J. R. Rutherford & Sons, Minories Joinery-wks., Jesmond, Newcastle.

Hampshire.—New senior schools, Totton, for E.C. Plans by County Architect, Winchester:—*F. Cope & Co., Ltd., 5, Whitcombe-st., W.C.2.

Hampstead.—New wing at St. Mary's Convent, 47, Fitzjohn's-av. L. H. Shattock, architect, 26, Victoria-st., S.W.1. Quantities by Drower & Son, London, S.W.1:—

Jarvis Bros., Ltd., N.W.6	£12,328
C. B. King, Ltd., Hampstead	10,975
Fassnidge, Son & Norris, Uxbridge	10,947
J. Longley & Co., Ltd., Crawley	10,690
Boyd & Murley, Ltd., Reading	10,662
Godson & Sons, Ltd., Kilburn	10,530
Ekins & Co., Ltd., Hertford	10,523
*Hinkins & Frewin, Ltd., Cranham-st., Oxford	10,453

Hartismere.—Laying of water mains, construction of storage and service reservoirs, sewerage and sewage disposal works, for R.D.C.:—*W. F. Rees, Ltd., 39, Victoria-st., S.W.1, £101,300.

Hastings-on-Sea.—Infants' and open-air schools, Ore, for E.C.:—‡Ringmer Building Works, Ltd., Ringmer, £23,400.

Hebburn-on-Tyne.—Two ferro-concrete tanks at A. Reyrolle & Co.'s electrical engineering works. Cackett, Burns Dick & MacKellar, architects, Ellison-pl., Newcastle:—*Alexander Anderson (Contractors), Ltd., Stanmore-rd., Newcastle, £2,000.

Hebburn-on-Tyne.—7 houses in flats in St. Hildaster., and 10 houses in flats in Frobisher-st.:—*J. M. Black (Jun), Ltd., Grange-rd. West, Jarrow-on-Tyne.

Huddersfield.—Junior and infants' school at Dalton, for C.B. G. Crossley, A.R.I.B.A., Education architect, Peel-st.:—Builders—*Robinson & Crowther, Ltd., Cleckheaton; carpenter and joiners—*Beaumont & Wilson, Ltd., Harrogate; plumber and glaziers—*H. Hilton (Nottingham), Ltd., Nottingham; plasterer and tilers—*W. Riley; painter and decorator—*A. Preston; steelwork—*H. Brook & Co., Ltd.; asphalters—*Neuchatel Asphalte Co., Ltd., Salford, 5; reinforced concretors—*F. Dyson & Son. (Rest of Huddersefild.) Cost £41,026.

Hull.—Works, for T.C. :—Erection, Hopewell-rd. school—*G. Houlton & Sons, Ltd., Hull, £67,337. Roadways, drainage, fencing, etc., Pickering-rd. schools site—*George Wimpey & Co., Ltd., Hull, £3,111.

Ilkley.—Extensions to Wesley Deaconess College, in Queen's-rd., for Board of Management, Walker & Collinson, architects, 12, The Exchange, Bradford :—Masons, bricklayers, concretors—*Geo. Rishworth & Sons, Ilkley; joiners—*A. Shaw & Co., Bradford; plumbers—*R. & T. L. Nelson, Ilkley; plasterers—*Taylor & Salter, Ltd., Leeds; roof slaters—*T. Giblin & Sons, Bradford; electricians—*Inman, Joist & Co., Shipley; bison floors, precast steps and landings—*Concrete, Ltd., Leeds; metal windows—*Henry Hope & Sons, Birmingham; sanitary fittings—*John Mollett, Ltd., Bradford.

Ipswich.—12 2-bedroomed and 16 3-bedroomed maisonettes, and 16 aged couples' dwellings upon the western portion of the area south of the Rope Walk, for T.C. :—‡J. Gerrard & Sons, Ltd., Swinton, Manchester, £15,000.

Jackfield.—Restoration of the Free Bridge, for Shropshire C.C. :—*Cement Gun Co., Ltd., Brentford. (Estimated cost, £450.)

Jarrow-on-Tyne.—Conversion of premises, Monkton-rd., into boot and shoe factory, for Jarrow and Hebburn Co-op. Society, Ltd., Albert-rd. G. C. Young, architect, 12, Grange-rd. West :—*Minto & Shearer, 2, Catherine-st., Jarrow-on-Tyne.

Leeds.—Extension of Rachel Children's Home, Street-ln., for T.C. William Broadbent, F.R.I.B.A., F.S.I., architect, Hillary-chambs., Hillary-pl., Leeds, 2:—†W. Ripley & Sons, Ltd., 128, West-st., Leeds, £2,730. (Subject to M.H. approval.)

¶London (Air Ministry).—Contracts for the week ended November 12 :—Digby, district heating, Brightside Foundry & Engineering Co., Ltd., Birmingham, 3; Marham and Feltwell, squash courts, R. G. Carter, Ltd., Drayton; Yeadon, drill hall and class rooms, F. Perks & Son, Ltd., Long Eaton, Nottingham; London Hirings, artificers' works, Haymills (Contractors), Ltd., London, W.5; Honington, artificers' works, W. Hayward, Bury St. Edmunds.

¶London (H.M.O.W.).—Tenders accepted for the week ended November 10 :—Blackburn Royal Ordnance Factory—cables and accessories, British Insulated Cables, Prescot. Blackburn Royal Ordnance Factory—switchgear, The Arctic Fuse & Electrical Manfg. Co., Ltd., Birtley, Co. Durham. Bishopton Royal Ordnance Factory—pumping equipment and sewage screening gear, The Pulsometer Engineering Co., Ltd., 39, Victoria-st., S.W.1. Chorley Royal Ordnance Factory—canteen cooking equipment, James Stott & Co. (Engineers), Ltd., 145, Queen Victoria-st., E.C.4. Admiralty tables, Lord Roberts Memorial Workshops, 122, Brompton-rd., S.W.3, and Wake & Dean, Ltd., Yatton, nr. Bristol. Motor drivers' lockers, Valor Co., Ltd., Bromford Erdington, Birmingham. Steel vertical filing cabinets, Art Metal Construction Co., 199-203, Buckingham Palace-rd., S.W.1. Rickmansworth Sorting Office and Telephone Exchange—steel sashes, doors and louvre vents, etc., The West Bromwich Casement & Engineering Co., Ltd., George-st., West Bromwich. Ministry of Labour Training Centre, Stafford-rd., Waddon, Croydon, Surrey—roofing, Yeomans & Partners, Ltd., 41, Upper Berkeley-st., W.1. Ministry of Labour Training Centre, Rathbone-rd., Liverpool—erection, C. & G. L. Desoer, Ltd., 2-4, Marathon-st., Liverpool, 6. Whitehall Area, London, S.W.1—installation of auxiliary fire service, O. C. Summers, 111-113, York-way, Camden-rd., N.7. Summertown Telephone Exchange, Oxford—extensions and alterations, E. Organ & Son, 205, Cowley-rd., Oxford. Ministry of Labour Training Centre, Stafford-rd., Waddon, Croydon—patent glazing, Monk Patent Glazing Co., Ltd., Crawford-st., Rochdale. Hollinwood H.M. Stationery Office—erection of additional wing, P. Hamer, Ltd., 15, Park-st., Swinton, Manchester. Woodseats Telephone Exchange—extension, T. Ardern & Son, 80, Spital Hill, Sheffield, 4. Canvas Delivery hose, Lewis & Tylor, Ltd., Terminal House, Grosvenor Gardens, S.W.1. Suction hose couplings, Laycock Engineering Co., Ltd., Victoria Wks., Millhouse, Sheffield, and Pyrene Co., Ltd., Great West-rd., Brentford. Bridgend & Glascoed Royal Ordnance Factories—medium duty lathes, Churchill-Redman, Ltd., Parkinson-ln., Halifax. Bridgend & Glascoed Royal Ordnance Factories—lathes, Ward, Haggas & Smith, Ltd., 38, Victoria-st., S.W.1. Writing tables, The Leicester Cabinet Co., Ltd., Patten-st., Leicester, and Wake & Dean, Ltd., Yatton, nr. Bristol. Plan presses, The Central Shopfitting Co., Ltd., Redcross-st., Bristol, 2. Soap, T. H. Harris & Sons, Ltd., 22, Marshgate-ln., Stratford, E.16, and John Knight, Ltd., The Royal Primrose Soap Wks., Silvertown, E.16. Tiverton Telephone Exchange—erection, E. B. Wright, 58, Edgcumbe-av., Newquay. Glascoed Royal Ordnance Factory—lightning protection system, F. H. Wheeler & Co., Ltd., 39, Victoria-st., S.W.1. Iron Library, British Museum—reconstruction of north-east quadrant, Holloway Bros. (London), Ltd., Bridge Wharf, Millbank, S.W.1. Bishopton Royal Ordnance Factory—vat covers and damper control rods, The Aluminium Plant and Vessel Co., Ltd., Point Pleasant, Wandsworth, S.W.18. Bridgend and Glascoed Royal Ordnance Factories—general purpose lathes, Holbrook Machine Tool Co., Ltd., 44-48, Martin-st., Stratford, E.15. Chorley Royal Ordnance Factory—motor ambulances, Vauxhall Motors, Ltd., Luton, Beds. Canvas bags, Adam & Lane & Neeve, Ltd., Copperfield-rd., Mile End, E.3, and Antigas, Ltd., St. Leonards Wks., Bromley-by-Bow, E.3. Telephone Exchange, Fakenham, Norfolk—erection, H. Bullen & Son, Ltd., Central-rd., Cromer. Rampton State Institution, Retford, Notts—erection new male workshop; nurses' home, alterations and additions; and medical superintendent's house, A. Richmond & Sons, West-st., Retford. Carpenters' benches, F. Wildey, Ltd., 4a, Sandford-st., Fulham, S.W.6. Fitters' benches, Fletcher & Son, Delamers-st. Joinery Wks., Crewe. Telephone Exchange, Pound Hill, Sussex—erection, McKellar & Westerman, Ltd., 143, Church-rd., Hove. Bridgend and Glascoed Royal Ordnance Factories—shaping machines, Fredk. Town & Sons, Mile Cross Engineering Wks., Gibbet-st., Halifax. Chorley Royal Ordnance Factory—anti-static belting, The Gandy Belt Manfg. Co., Ltd., Wheatland Wks., Seacombe. Mirfield (Yorks) Post Office and Telephone Exchange—heating and hot-water services, The Leeds Marble & Heating Wks., Ltd., St. Columbia Wks., Woodhouse-ln., Leeds, 2.

¶London (War Office).—Contracts placed during the week ended November 10 :—Sandhurst block at Reed Hall, Colchester—F. Hutton & Son, Ltd., Colchester. Married soldiers' quarters, Colchester—H. Smith & Sons, Clacton-on-Sea. Ranges, etc., at Tidworth—W. E. Chivers & Son, Devizes. Semi-permanent Camp at Catterick—Lawson & Boddy, Darlington.

London.—Works, for L.C.C. :—Reconditioning of Fulham central girls' school :—

W. H. Gaze & Son, Ltd., Kingston	£11,575
George Newton and Hill	11,224
F. Troy & Co., Ltd.	10,937
J. & C. Bowyer, Ltd.	10,777
Wm. Harbrow, Ltd.	10,445
Harry Groves & Son	10,177
F. J. Moreton & Sons, Ltd.	9,846
Triggs & Co., Ltd.	9,765
‡W. J. Marston & Sons, 1, Stephendale-rd., Fulham	9,672

Architect's estimate, £10,963.

Earl storm relief sewer—South London drainage :—

W. & C. French, Ltd., Buckhurst-hill	£127,405 0 6
John Mowlem & Co., Ltd.	125,789 10 6
Chas. Brand & Son, Ltd.	125,216 2 3
Mitchell Bros., Sons & Co., Ltd.	121,916 1 6
Edmund Nuttall, Sons & Co. (London), Ltd.	121,700 0 5
Cleveland Bridge & Engineering Co., Ltd.	120,438 5 10
Howard Farrow, Ltd.	120,128 16 6
Kinnear Moodie & Co.	117,950 0 5
‡Paterson & Dickinson, Ltd., Cornhill, E.C.3	93,226 3 8

Chief Engineer's estimate, £96,131 10s. 9d.

External and internal cleaning, painting and repairs, Chelsea institution, local office, 250, King's-rd., S.W.3, and relief station, 143, Sydney-st., S.W.3 :—*Sykes & Son, Ltd., £1,089. Wiring and fittings for electric lighting and power, Dunton farm :—*W. Steward & Co., Ltd., £502.

Loughborough.—50 non-parlour three-bedroom type houses in pairs and blocks of four on Ling Farm housing estate, for T.C. W. Granger, B.S. :—

Geo. Gurney & Son, Leicester	£21,250
Winton Hayes, Ltd., Biggleswade	19,960
A. Ward, Sileby	19,918
W. R. Peet, Kinoulton, Notts	18,865
E. H. Parker, Long Eaton	18,750
H. Wiltshire & Sons, Ltd., Nottingham	17,895
Ripleys, Ltd., Ripley	17,799
Thos. Barker & Sons, Loughborough	17,095
R. Hustwayte, Nottingham	16,447
Sherriff & Co., Ltd., Leicester	16,385
*William Davis & Co. (Leicester), Ltd.	15,350

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Lymm.—Unclimbable iron rail fences alongside Bridgewater Canal on Newfield Housing site, for U.D.C. C. Mort, S. :—*Saville Bros., Lymm, near Warrington.

Macclesfield.—8 houses at Sutton; for R.D.C. J. H. Waters, architect, Moody-chambs., Moody-st., Congleton :—*Gleave Bros., Oldham-st., Bollington, £2,592 5s. 6d.

Maidenhead.—Premises, comprising drill hall recreation rooms, lecture rooms, stores, etc., for the Berks Territorial Army Association, in St. Luke's-rd. Hoare & Wheeler, F./A.R.I.B.A., architects, 15, Portman-st., London, W.1. Quantity surveyors, Henry Cooper & Sons, 181, Queen Victoria-st., London, E.C.4 :—*Jones & Sons, Maidenhead.

Manchester.—50 flats, Wilmslow-rd., East Didsbury, for Parrs Wood Court Investment Co., Ltd., Parrs Wood-rd., Didsbury. J. L. Edwards, architect, 51, South King-st. :—*J. F. Moore, Ltd., Chadwick-rd., Eccles.

Merthyr Tydfil.—Alterations and additions to Pantglas Council schools, Aberfan, for C.B. A. J. Marshall, C.E., B.E. Quantities by B.E. :—

Evan James, Ystrad-Mynach, near Cardiff	£16,973 12 6
†Enoch Williams & Sons, Dowlais	16,763 0 0

Monaghan.—Clinic at Castleblayney, for County Board of Health :—

Whelan & Magee, Dublin	£4,041
P. McGeough, Monaghan	3,968
I. Healy, Drogheda	3,757
*P. O'Reilly, Ballybay	3,366

Naas.—Alterations to block 1 at Naas Military Barracks, for County Kildare Vocational Education Committee :—*Feeley & Sons, Dublin, £563.

Newcastle-under-Lyme.—Water supply, contract No. 2, for parish of Madeley, for R.D.C. A. H. S. Waters, E., 25, Temple-row, Birmingham, 2 :—†W. I. Taylor & Co., Gladstone-st., Basford, Stoke-on-Trent, £219 1s. 10d.

Normanton, Yorks.—Superstructure of pithead baths to Altofts Colliery, for Miners' Welfare Central Fund Committee, Romney House, Marsham-st., S.W.1. J. H. Forshaw, chief architect :—*P. P. Taylor (Doncaster), Ltd., 6, South-parade, Doncaster, £11,024.

North Riding.—Works, for E.C. :—Installation of (1) low-pressure hot water heating apparatus and domestic hot water supply, and (2) electric light and power, at new High School for Girls, Richmond. Denis Clarke Hall, A.R.I.B.A., architect, 38, Sackville-st., London, W.1—Heating, *Mathew Hall & Co., Ltd., 26, Dorset-sq., London, N.W.1, £1,680 15s.; electrical, *Graham Bros., Zetland-pl., Middlesbrough, £456 8s.

Northleach.—8 houses at Dowdeswell, for R.D.C. :—*Percy Chick, Highworth, £3,725.

Nottingham.—Reconstruction as drill hall and headquarters of Upnah House, Forest-rd., for Notts Territorial Army and Air Force Association. Cyril F. W. Haseldine, F.R.I.B.A., architect, Halifax House, Milton-st., Nottingham. :—*J. Cawley, Ltd., Canal-st., Nottingham.

Oxford.—Proposed infants' and junior schools, Cuttelowe, for E.C. Harold F. Hurcombe (L.), architect, Town Hall :—*Wilson, Lovatt & Co., Ltd., Clarence-st., Wolverhampton, £14,364.

Paignton.—New Church of St. Paul's, Preston, for the Building Committee. N. F. Cachemaille-Day (F.), architect, 26, Dorset-st., London, W.1 :—Staverton Builders, Ltd., Staverton Bridge Mills, Totnes (cost about £10,000).

Portsmouth (Admiralty).—Admiralty experimental works :—John Hunt, Ltd., Cleveland-rd., Gosport.

Portsmouth.—Public conveniences for both sexes in Highland-rd., for T.C. :—*Brinton (Builders), Ltd., £2,598.

Portsmouth.—Block of three stores in Chance-st., for J. Jordan :—*E. H. Sadler, Ltd., St. Simons-rd., Southsea.

Reading.—New Residence for Women, Reading University, for the Senate. Vernor O. Rees (F.), architect, 33, Bedford-pl., London, W.C.1. Wallace Chapple, quantity surveyor, Great James-st., London, W.C.1 :—Collier & Catley, Ltd., St. Mary's Butts, Reading.

Rowley Regis.—Extensions to offices, Springfield Rowley, near Dudley, for Doulton & Co., Ltd., Springfield, Dudley. Webb & Gray, architects, 200, High-st., Dudley :—*J. M. Tate & Sons, Cradley, Staffs.

Rugeley.—For Brereton sewerage and sewage disposal, for U.D.C. A. H. S. Waters, E., 25, Temple-row, Birmingham :—†M. A. Boswell, School-st., Wolverhampton, £23,985 7s. 11d.

Sale.—Erection of Cecil-av. senior school, for Cheshire E.C. F. Anstead Browne, County Architect, The Castle, Chester :—†E. E. Coleman, Ltd., 11, Washway-rd., Sale, £43,377.

Sheffield.—Saleshops and stores, Lindsay-av., for Burgon & Son, Bridgefield-rd. Fenton & Robinson, architects, 10, Paradise-sq. :—*A. Bradbury & Son, 334, Cemetery-rd., Sheffield.

Sheffield.—Works for T.C. W. G. Davies, City Architect. Heating apparatus at Abbeydale secondary school for girls, *Maddock & Wright, Lillie House, London-rd., Leicester, £4,048; erection of Parson Cross junior council school, site No. 2, *W. Malthouse, Ltd., 51, Rosedale-rd., Sheffield, £27,599; installation of heating apparatus and domestic hot water system, female sick wards, Fir Vale House Institution, *Brightside Foundry and Engineering Co., Ltd., Newhall Ironworks, Attercliffe, Sheffield, £1,571.

South Molton.—Approximately 8,000 lin. yds. of 6 in. dia. asbestos cement pipes in construction of new water main from Holywell reservoir at North Molton to South Molton service reservoirs, for T.C. Harold Settle, M.I.M. and C.E., Borough Architect, Engineer and Surveyor. Quantities by Borough Architect:—

Hadsphaltic Construction Co., London	£12,786 11 6
W. S. Dart, Brixham	9,285 12 0
Geo. Pollard & Co., Taunton	8,531 7 8
S. Foster Deacon, New Barnet	7,878 7 7
W. G. Beaumont & Co., Bow, London	7,476 2 3
A. E. Henshall & Co., Portsmouth	7,433 3 7
W. G. Northcott & Co., Exeter	7,154 9 11
The Dunford Construction Co., Bristol	7,049 3 8
J. Dennis & Son, Braunton	7,040 0 0
W. & J. Glossop, London	6,913 9 4
J. G. Best & Son, Teignmouth	6,890 17 1
Rouse & Sleep, Gamislake	6,803 7 8
*Wm. Sanders & Son, South Molton	6,469 4 10

Southend-on-Sea.—Glasshouses at the new propagation centre, for T.C.:—*R. Halliday & Co., Ltd., Middleton, Manchester, £5,213 15s.

Spennymoor.—Extensions and alterations to secondary school, for Durham C.C. F. Willey (F.), 34, Old Elvet, Durham:—*T. Manners & Sons, Peel-st., Bishop Auckland, £30,000.

Spilsby.—Shop, tea and dance hall, 4 lock-up shops, Seaview estate, Ingoldmells:—*B. W. Malkinson, Sunnymede, Roman Bank, Ingoldmells, nr. Skegness.

Spilsby.—Wiring of council houses for electricity supply in various parishes, for R.D.C. W. Bailey, S.:—*G. T. South, Alford, £270.

Stoke-on-Trent.—1,156 houses at Chell Heath, for T.C.:—*G. & J. Sneddon, Ltd.

Stretford.—Works for T.C.:—Conversion of Cornbrook Park Wesleyan school into gymnasium, *Freeman Evans & Co.; staff messroom and stores-room at Victoria Park and old gentlemen's hut at Longford Park, *Ernest Jackson & Sons, Ltd.; exterior painting of council houses, *A. Painter, *A. Reeves, *G. A. Orme, *J. Darbyshire, *W. Whiteside, *G. E. Hollins.

Sunbury-on-Thames. — Rebuilding "Hare and Hounds" p.h., Vicarage-rd., for Fuller, Smith & Turner, Ltd., Griffin Brewery, Chiswick, W.4. H. Reginald Ross (L.), architect, 66, Chancery-ln., London, W.C.2:—Works Dept., Griffin Brewery, W.4.

Sunderland.—Pump house, Railway-row, for T.C. J. E. Lewis, B.E.:—*Snowdon Brothers, Grindon, Sunderland.

Tarvin.—Modernisation and remodelling offices and council chamber in Westminster-bldgs., Newgate-st., Chester, for R.D.C. C. H. Coppack, architect, 3, Hunter-st., Chester:—Builders—*J. Mayers, Sons & Co., Ltd., Chester, £1,383; painting—*A. J. Meredith, Chester, £114 2s. 7d.

Tottenham.—Repainting 24-in. main and bridges over the River Lee and Lee Navigation, Ferry-ln., Tottenham, for M.W.B.:—*Direct labour, £260.

Tredegar.—52 semi-detached non-parlour type houses at Nantybwch, for Council:—*E. S. L. Rosser, Cardiff, £21,058.

Wandsworth.—Interior painting works at 67/147 (odd) Topsham-rd., Elmwood House estate, and 57/75 and 107/127 (odd), 100/140 (even) Buckhold-rd., 1/5 (odd), 2/10 (even) Mapleton-rd., and 111/115 (odd) Merton-rd., Southfields housing estate, for B.C.:—*H. & P. Matthews, £326 and £390.

Warminster.—70 houses, for U.D.C.:—*L. Masley & Son, Ltd., Devizes—Princecroft-ln. site, houses £21,488 10s. 6d., roads £1,162 14s., sewer £791 6s. 4d.; Book-st. site, houses, £2,567 4s.; Bradley-rd. site, houses £896 15s.; Sambourne-rd. site, houses £2,496 17s. 6d.

Wellington.—8 houses at Nynehead, and 8 houses at Ham, East Buckland, for R.D.C.:—*F. W. Gibbs & Son, Taunton, £3,434 and £3,217.

West Ham.—Reinforced concrete decking in connection with Stratford High-st. widening, for C.B.:—*G. Percy Trentham, Ltd., £475 5s.

Westminster.—Decorations and repairs to City Hall, for City Council:—*Sims & Russell, £490 10s

Whitby.—(a) Engineering work and (b) electrical work in connection with proposed isolation hospital, for U.D.C.:—(a) *Heslop & Hall, West Hartlepool; (b) *Barratt Bros., Whitby.

Wolverhampton.—Alterations to public conveniences, retail market hall, for T.C.:—*C. E. Dudley & Sons, Powlett-st., Wolverhampton, £597.

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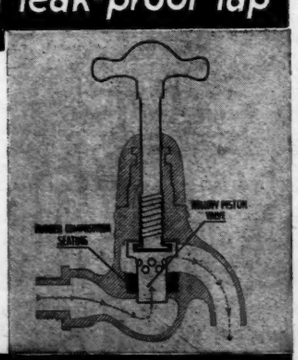
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